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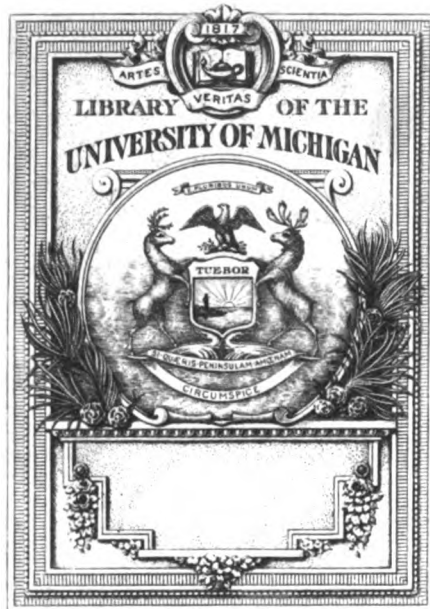
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# QUEEN'S QUARTERLY

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VOLUME XII.

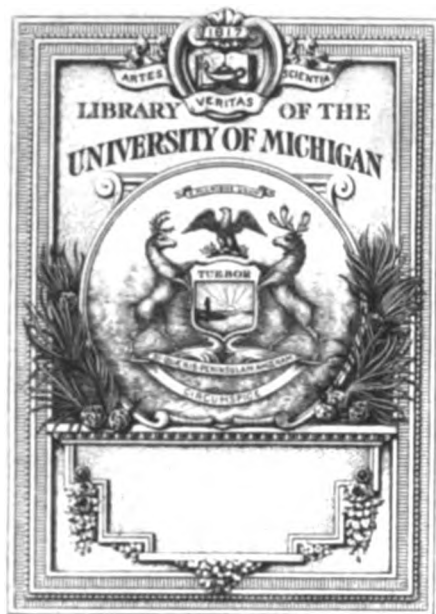
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JULY, 1904,—APRIL, 1905.

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OF QUEEN'S QUARTERLY, QUEEN'S  
UNIVERSITY, KINGSTON,  
CANADA.





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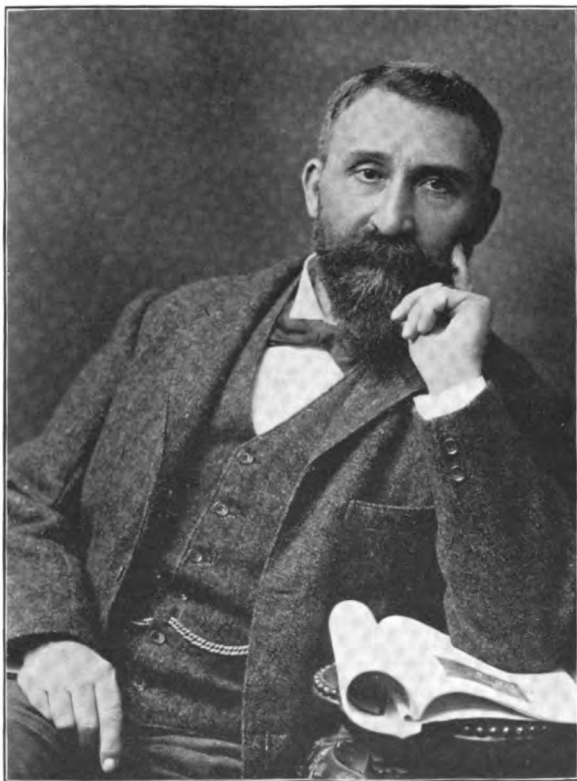
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JAMES PARK THOMSON, LL.D.,  
BRISBANE, AUSTRALIA.

# Queen's Quarterly.

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VOL. XII.

JULY, 1904.

No. 1

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## NOTES ON THE NATIVES OF AUSTRALIA.

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**T**HE early navigators who first landed on the shores of Australia were met by people in possession of the country who appeared to differ in some physical respects from the other coloured races of the earth known to civilized man. Unlike the Maories, the Red Indians, and other such superior races, this physical difference, and even the mental one as well—for both attributes were conspicuous enough to make the contrast easy—was unmistakably unfavourable to the poor Australian aboriginal, who from that moment was doomed. Doubtless, anticipating no very serious resistance from such an inferior people, the Britishers invaded the country, taking possession of a magnificent territory that had been dominated, for how long no one knows, by these children of the soil. It is somewhat remarkable that, from the very first, these autochthons have been regarded as a thing of evil, most inferior beings altogether, the lowest of all in the social and intellectual scale. To civilize them was out of the question ; it were, in point of fact, hopeless to attempt anything of the kind. Better drive them far back into the waste regions of the continent to die off in the fierce struggle for existence. And so it has been, and so it is to some extent even now, the original owners of this most rich and fertile country have been driven into the sterile places before the advancing wave of British settlement and colonization. Their oft repeated protests with spear and nulla-nulla have been weak and ineffective ; they have been cut off from their former hunting grounds and allowed to wander aimlessly about the country, eking out a most precarious existence as best they could. In Victoria there are only a few tribal remnants left ; in New South Wales the position numerically is somewhat better, but still many of the old tribes have disappeared, and

there is none of the former racial greatness to be met with, whilst their numbers are comparatively small in the settled districts of other parts of the continent. It is really a question of time when the entire race will have completely disappeared like the Tasmanians. As it is, the death rate amongst the blacks is very high and greatly in excess of the births, and this, it must be understood, is occurring in places where the conditions of life are most favourable. In the past comparatively little has been done by private enterprise to ameliorate the condition of these wretched people. There has been the usual annual distribution of blankets to them by the State, but nothing further, until recently, when the Government of Queensland with praiseworthy consideration made arrangements for their protection. Undertaken fifty years ago such a movement would no doubt have done a lot of good, but now it is not likely to have any great beneficial effects. It, however, shows that even so late in the day there is a desire to make amends for past neglect, and looking at the matter in this light alone there is reason to be thankful for the recent development in their favour. Experience has, however, shown us often enough that the natives are far better left undisturbed, and that any attempt to take them away from their natural surroundings and limit their movements by a restriction to civilized life has not proved successful. Under the circumstances it were kinder, and decidedly more charitable, to encroach upon their freedom as little as possible ; let them roam over the country unrestricted in any way, and interfere with them no more than can be helped. In some of the States there have been established for years a few home mission stations for the care of the natives. Here the youths of both sexes are looked after and trained as much as possible in the ways of civilization, whilst at the same time their religious welfare receives attention at the hands of the missionaries controlling the movement. A great deal of good has no doubt been done in this way, but the present effort is far too weak and altogether inadequate ; the number of such stations is absurdly small, and consequently the influence of what ought to be a most powerful and active civilizing agent is only felt within the comparatively narrow limits of a few familiar tribes, instead of having an energetic force in the field, whose opera-

tions would spread far and wide over the vast territorial home of the Australian black.

The native race of Australia, I must here remark, consists of nomadic people arranged into numerous petty tribal divisions, each of which is characterized by some dialectic peculiarity or distinctive social custom. The whole of the tribes collectively are grouped into two great exogamous intermarrying classes, and these again are subdivided into smaller groups, each of which is known by some distinguishing appellation. Territorially each tribe is restricted in range, so to speak; or, to put it another way, located within a known region, which may be called a tribal district. The class divisions or groups, according to anthropologists, have been designated organizations or systems, the largest and most important of all being the widely spread Kamilaroi Class System, that occupies a very great portion of New South Wales, Queensland, and, on the north-west, probably extends into the territory of South Australia. The next important organization of the kind, occupying a district west of the preceding one, is called the Barkinji. In this system there are two primary classes but no sub-classes such as exist in the Kamilaroi community. The prevailing rule amongst the aborigines of the country is the reckoning of descent through the mother instead of the father—a law, the application of which is as wide as its enforcement is rigid. Before marriage the young men have to pass through the initiation ceremony and be admitted to the status of manhood, and even then the consent of the elders is necessary before a man can take unto himself a wife. Before making any further remarks upon the manners and customs of these people it is perhaps better to offer some brief observations concerning their physical and mental attributes. First of all, it is necessary to observe that in physical appearances the race exhibits some striking local differences, as well as distinctive tribal features, to which I intend to allude more fully later on. For instance, a detailed description of a Victorian aboriginal would scarcely hold good for a North Australian one, nor yet would the physical appearance of one of the coastal dwellers be identical with that of an inhabitant of the interior of the continent. The average aboriginal is black, with thick, black, curly hair; the forehead and

face are broad ; the eyes keen, moderately large and fairly expressive ; the nostrils large and the nose rather flat and chubby ; the ears large ; the chest full and deep ; the lower limbs comparatively thin, but not lacking in shape and curvature ; the feet are certainly not large, and the hands are decidedly small and well shaped. As a rule the men are fairly tall and not badly formed ; their carriage being graceful and manners dignified. The women are smaller than the opposite sex, and less attractive than the Papuans or Polynesians ; they mature early in life and age very rapidly, at a time when they ought to be in the very bloom of womanhood. But this is not to be wondered at seeing the hardness of their lot, for they are truly the workers, the duties imposed upon them being of the most laborious and arduous kind. At an early age they commence domestic drudgery, and this is carried on uninterruptedly through life ; nor is this all, for they very often have to undertake duties that rightly belong to the men. It is indeed no uncommon thing to see a poor native woman marching along under a crushing load of sundry articles, including a baby and weapons of warfare, whilst the husband, her lord and master, leads the way unconcerned and free from impediments of any kind. But the women's lot is even rendered harder to bear by reason of cruel treatment from those to whom they ought rightly to look for protection. They are oftener kicked than caressed, still they murmur not nor neglect their duty in consequence, but follow on in meek submission to meet the inevitable fate that crops up everywhere along the line of action. Many of the women have pleasant facial expression and are not without personal charms ; they are less powerful than the men, but very active and resourceful. In disposition they are kind to one another and very fond of their offspring. Now, the local differences and tribal features, upon which I have already briefly touched, may be further alluded to in this way : Geographically the race is distributed all over the continent in groups known as tribes. In physical development the inhabitants of Northern Queensland and Torres Strait are far superior to the aborigines of the southern and central regions of the continent. Then again, in the natives of the Northern Territory of South Australia we find some distinctively Malayan features, sug-



gestive of an admixture of Asiatic blood, for no one can reasonably deny that there is a striking ethnological distinction between these people and the inhabitants of the other portions of Australia. Indeed it is this more than anything else that has been accepted as satisfactory evidence in favour of their origin. Leaving this region we meet in the tribes that find a home in the thirsty, parched lands of the great central depression an altogether different type of the native race—a people whose physical appearance betoken a sharp life-struggle, surrounded as they are by the stern conditions of a relentless desert. The dwellers of the coastal districts elsewhere are different again. With them the struggle for existence is comparatively easy, a fact not readily concealed by the decidedly well nourished condition of such representative members of local tribes as are met with from time to time. The food supply of these people is not only superior in quality to that of the far inland natives, but it is to be procured in greater variety and quantity than elsewhere. Many of the north and central Queensland tribes can turn out some tall and powerfully built men, well conditioned and of remarkably fine physique, men who in point of fact would in this respect be no discredit to the British race. Some very fine examples of these were paraded to the public gaze on the occasion of the arrival in Brisbane of Lord Lamington to assume the Governorship of Queensland several years ago. It is not to show approval of the manner in which these men were taken away from distant parts to march along the crowded thoroughfares of the capital city of the colony that I make mention of the occasion, but rather to support my own estimate of the physical attributes of people who are usually looked upon as being very inferior in that respect. In the manner to which I have alluded, these representative men were brought under the very eyes of what may be regarded as the whole of the citizens of Brisbane, who had thereby an admirable opportunity of judging their appearance under circumstances most favourable for comparison, the general verdict being in their favour. Not only are they tall in stature and graceful in gait, but they are broad and deep chested, muscular, and decidedly well made.

The aborigines are often represented as being naturally cowardly, treacherous, cunning, bloodthirsty, rapacious and

warlike. They are said to be cannibals, but in all my own experience I have never had an opportunity of proving the correctness of this assertion. Certain it is, however, that they have no compunction whatever in taking human life, and this they most readily do on occasions when favourable opportunities offer. It is, perhaps, very doubtful if this habit has come into general use from an inborn desire on the part of the people to kill for the mere sake of killing. It indeed seems to me, and I may say this opinion is based upon personal experience, that in very many instances the hostility evinced by the aborigines has arisen from a desire to avenge some injury rather than anything else. Wild and uncultivated natures are revengeful, and it would scarcely be possible for savages to submit to injury without protest. In point of fact they have many good qualities, and it has been shown by white men who have lived among them for years that the Australian blacks are often kind and hospitable, affectionate on the part of mothers to their children, and considerate for one another. Several cases in which these good points were exhibited have come under my own observation, and every person to whom these people are known must have observed much that is praiseworthy in their personal character, but then their good qualities are never, or very rarely, made known, and consequently the poor "black fellow" very seldom gets credit for creditable doings. We have, in the early history of our colonization, some remarkable examples of true bravery and devotion on the part of these greatly despised people. To put this more clearly and life-like it is only necessary to refer to the explorer Kennedy's boy, Jacky-Jacky, to whom I shall further allude in another article. There we have a primitive, inexperienced, aboriginal standing by his master to the very last. Surrounded by swarms of treacherous, blood-thirsty, rapacious savages of his own caste, colour and race, this simple-minded, unsophisticated native boy tried to comfort poor Kennedy during his last moments; in the face of great danger he defended his master bravely, and shed bitter tears over his lifeless body, which he removed out of the way of the enemy, covering it over, in the lonely and far off tropical scrubs of Northern Queensland. Truly this was an unselfish, brave and affectionate native, whose actions were worthy of emulation

even by those who are high up in the scale of civilized life.

Although governed by somewhat elaborate and complicated social and tribal laws, the ordinary aborigines are very simple and childlike in their manners and daily life. We have been told by James Murrels, who lived for seventeen years among the wild blacks of North Queensland, that "they can eat almost anything." The same authority remarks that the tribes amongst which he lived so long "had no regular chiefs; the strongest is the best man." We are also told that the men have several wives—in some cases as many as eight or nine—and, of course, "it is mostly about their wives that their wars, fights and feuds occur,"\* The wives are often stolen, sometimes lent or sold for a time "for a slight consideration." There are very rarely more than four children in the one family, and the birth of twins is rarer still. Mothers suckle their infants for an unusually long time; indeed Murrell's remarks that they are kept on the breast till old enough to obtain food for themselves. The tribal community is always on the move; when the food supply of one locality becomes scarce or completely exhausted, the natives shift camp to some other place, and thus there are a continual coming and going amongst them. Their mode of life is entirely different from, say, the Polynesians; indeed, they are very singular in habits. They scorn the village settlement idea altogether, and seem to have no conception whatever of fixed communal life. In fine weather they live in the open air, but on the approach of the wet and cold season bark shelters are put up, and in these "gunyahs," as they are called, they huddle together. But, at the very best, the life of these wretched people is miserable. There is no attempt on their part to build villages, and the flimsy structures which they put up from time to time are of the most primitive kind imaginable and not nearly sufficient to afford protection from wind and weather. It never seems to occur to them that there is plenty of excellent building material available on most of their camping grounds, and that a little further attention to the necessities of life would add greatly to the comfort of all concerned.

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\*Narrative of James Murrell's Seventeen Years' Exile Among the Wild Blacks of North Queensland. By Edmund Gregory, p. 35, Brisbane, 1895.

One of the most interesting of all the tribal rites or usages of the Australian aborigines is the one whose function it is to make youths men. This "Bora," or "Burbung" ceremony, as it is called, which is practised all over the continent wherever the natives are sufficiently numerous, has often been described in ethnological literature by well known writers, one of the most recent being Mr. R. H. Mathews, of Parramatta, New South Wales, who has dealt with the subject in a very instructive way. The "Bora" is also practised in Polynesia, especially in Fiji, where it is known by the name of *Nanga*, one of the very first, if not the only European, to investigate it there being the Rev. Lorimer Fison. The primary object of this ceremony, a most elaborate one, is the initiation of the youths into the secret of the sexes and admission to the privileges and responsibilities of manhood. No man is allowed to take unto himself a wife until he has passed through this *bora* ordeal and received the distinctive ear mark of manhood. The women are not admitted into the secrets of this rite, it being a thing that only concerns their lords and masters. Mothers are, no doubt, aware that some great change has come over their sons when they pass out of their control, after the ceremony. Notwithstanding all that has been said and written about this highly interesting subject, it is decidedly doubtful if the full particulars and significance of it are as yet wholly known and clearly understood. Some accounts of the *bora* have been given by Europeans who were supposed to have witnessed it, but, with the exception of Mr. Howitt, of Victoria, it is believed that no white man has ever been permitted to be present during the ceremony.

The *bora*-grounds are selected in some convenient locality and are specially prepared. There is a large circle called "Burbung," and a small one called "Coombo," within which the rites are performed. The bark of the trees near by and the ground on each side of the pathway from the *Burbung* to the *Coombo* are usually adorned with carved devices and representations of various animals and remarkable looking things. The officiating officers are always the elders or leading men of the tribe, into whose hands the novices are placed. A gathering of the tribes that participate in the privileges of the *bora* pre-

cedes the commencement of the ceremonial. This is effected by message sticks which are passed on from tribe to tribe, and it is significant of the importance of the proceedings that many of the invited guests travel long distances to be present. The general principles and objects of the whole rite never vary, although the details may do so with different organizations. There is one thing very certain, that the whole proceedings from beginning to end are of the most intricate and elaborate character conceivable, the whole occupying several days and nights. At the close of the ceremony the young men who have been initiated receive a token of having passed through the several grades of the *bora* ; one of the front teeth is knocked out ; they are warned on the pain of death to keep the particulars of the rite a family secret, and on no account to give the women the slightest clue of anything that has passed.

A good deal has been said about the manner in which this national racial custom is carried out. To the cultured and highly refined mind some acts in the realistic representations of life's drama, so faithfully portrayed by those who instruct the dusky youths in the duties and functions of manhood during the *bora* ceremony are apparently immoral. This appearance, although deceptive, is really very striking in that part of the performance where the sexual manifestations are disclosed. Here the initiative movements are intentionally suggestive and to all appearance extremely lewd. But, there is in reality only this seemingness and nothing more ; to the aboriginal mind the muscular actions are perfectly natural and incitation is not the purpose of the performance at all. I have been told by the people themselves that as a matter of fact the youths are too much impressed by the awe-inspiring nature of the whole proceedings to be influenced to any great extent by sexual demonstrations. The main idea is to present a living picture of the allurements, the great temptations and sins of the flesh that beset the youthful traveller in life's journey ; to warn him of the danger of giving way to these, and pointing out how they may best be avoided. The youthful pilgrim is, indeed, taken by the hand at a very critical period of life, and he is implored by the wise fathers to be good and not to wander from the narrow path. They know he will often be tempted, but a timely

warning is given under circumstances calculated to leave a lasting impression upon the receptive mind.

I have already remarked that the *bora* ground in Australia takes the form of a large circle and a small one, about a quarter of a mile apart, the former being some twenty-five yards in diameter or thereabouts, and surrounded by a wall. This form or inclosure or cleared space differs from the Polynesian type in some important particulars. In Fiji, for instance, the ground is rectangular, being inclosed with large stone slabs and comprising several important divisions and sub-divisions, in the form of courts, both inner, outer and intermediate. The inner court, which is the most sacred or exclusive of all, is the one into which the novices pass at the end of the initiation ceremony.

In the northern and southern regions of the Australian continent the youths are circumcised at the age of about twelve or fourteen years, but this operative process is not recognized amongst the natives of Western Australia and the Murray Basin. Allied to this operation, because of its being performed upon the circumcised organ of the male and corresponding parts of the female, is one whose purpose, although as yet not clearly understood, is certainly altogether different from anything else. The practice, which is carried out by the tribes of Central Australia and the Northern Territory, is generally known as "Stuart's Terrible Rite." It consists of a most severe and heroic operation, the effect of which is to mutilate the affected part. Opinions differ as to the real object of this most remarkable "rite," some authorities holding that it is to limit the offspring, others believing that such is not the case. The subject, which is pregnant with speculative material, has recently received some special treatment at the hands of Professor Anderson Stuart, of the Sydney University, and by Dr. Bancroft, of Brisbane, the two viewing it from opposite standpoints. Further investigation may no doubt throw some additional light upon the matter, but it is very doubtful indeed if anything nearer the truth will be obtained.

The social side of the native life is somewhat enlivened by spectacular demonstrations, in which the greatest and wildest enthusiasm prevails. First and foremost, and the one

which appeals most eloquently to the heathen mind, is the great "corroboree," or tribal moonlight dance. Away in the very depths of the forest there is a gathering together of the friendly tribes, the men and women of which join together in dancing and otherwise amusing themselves, sometimes all the night long. A fire—a great, roaring, scorching fire—is made in the middle of a cleared space, and there the madding crowd make night hideous with their dramatic demonstrations and demoniacal noises. On such occasions the dances are performed by the men, who gesticulate wildly and indulge very freely in imitative movements that are not always of a strictly moral character. But this, however, is neither here or there, the fact remains that on the whole these dances are highly amusing and entertaining, as evidenced by the time devoted to them and the enthusiasm that prevails whilst they last. There is, after all, very little difference in purpose between this heathen *corroboree* and our own social dances and entertainments. In our civilized state we are stirred up to a pitch of excitement in sitting watching the performers at some play house, where the suggestive movements of the dancing girls are followed with approving eyes, whilst the efforts most successful in their appeal to the sexual instinct of both male and female are rewarded by sounds of prolonged applause. But what does this matter, is it not one of the usages of civilized life? The Australian natives' *corroboree*, however, differs in some unimportant particulars from the white man's one, especially in the way the former terminates—an ending often characterised by hostile tribal demonstrations, in which the participants seem to take special delight.

The weapons of these people are very few and simple, consisting, as they do, of the spear, the boomerang, the nulla-nulla, the wooden sword and the shield. In Northern and Central Australia stone implements are still in use, chiefly comprising flint knives, hatchets and the like, including a very delicate little operating knife. The spears are sometimes barbed and pointed with stone, but these are now very rare, and it may fairly be said that the age in which they were in general use has passed away, having been succeeded by one in which iron enters very largely into the composition of such weapons. The light spear is usually thrown by the "wommera." This

throwing stick is mostly a moderately flat piece of wood of various sizes, one end of which is made to fit into a notch in the lower end of the spear, the other end being held by the hand of the warrior, who, with great force, hurls the shaft forward for probably a hundred yards or more. By the use of this "throwing" stick the momentum of the spear is greatly increased and the range consequently lengthened. The native handles his weapons with great skill and precision, and it is only necessary to witness the remarkable gyrations of the boomerang, after leaving the hand of the thrower, to realize how the movements of these dangerous shafts are controlled.

The Australian aboriginal has no actual religious belief, no fixed idea of a future state, no conception of a Supreme Being, and no moral principles, such as obtain in civilized life, for this is the standard upon which the comparison is based. The men are selfish, indolent and brutally cruel to the women, whose slavish life is of the most wretched description. These poor and outrageously used females are bound body and soul to their lords and masters, by whom they are thrashed and pounded unmercifully, being often crippled for life and killed outright for the slightest offence, real or imaginary.

There is no regular marriage ceremony, wives in most cases being purchased or stolen, and it is chiefly over the procurement of these fair females—these marketable commodities—that tribal wars have been waged. In very many cases the women have no choice in the marriage contract at all, the arrangements being made with the parents, whose approval of the union it is always prudent to obtain. It sometimes happens that baby girls are betrothed before birth, and when they become of marriageable age it is to find themselves very often claimed by men who are old and feeble. A case of this kind came under my own notice some twenty years ago. It occurred amongst the tribes located at the Myall Lakes, New South Wales. The girl, who was bright and rather intelligent, was at the age of about twelve or fourteen years claimed as the wife of an old and very repulsive looking man, whom she hated. A mild protest on her part met with a rebuke that nearly ended her young life and caused a very serious tribal fight besides.

From the numerous examples of rock drawings and carv-



ings that have been figured from time to time in scientific literature it is very evident that the art of pictorial representation is not altogether unknown to the Australian aborigines, whose carved outline figures of representative local animals occur in many of the caves and rock shelters of the continent. This subject has been clearly treated by Mr. R. H. Mathews, whose studies of the ethnology of the natives are very widely known and greatly appreciated by students of this branch of human knowledge.

In the preceding notes there have been offered some very brief remarks concerning a race of people, of whom it is most desirable that more should be known than the somewhat fragmentary pieces of information already recorded. When one comes to look at the magnificent annual volumes of the United States Bureau of Ethnology, in which the manners, customs and language of the American Indians are elucidated and recorded, one cannot help regretting that our own native people should have been so long neglected. Even now very little has been done to preserve an ethnological record of such tribal remnants as still survive. Native Protectors, it is true, have been appointed by the Queensland Government, but this was chiefly due to a somewhat persistent advocacy of the native cause on the part of some enthusiasts, especially Mr. A. Meston.

A good deal has been said about the origin of these Australians, many speculative views having been expressed upon the subject, all of which have been supported by evidence more or less satisfactory. One of the most recent opinions advanced by Dr. A. R. Wallace, which will no doubt find ready and wide acceptance, is that they constitute the lowest and most primitive fragment of the great and widely scattered Caucasian division of the human family, and are consequently very closely related to ourselves. That they are on a very low horizon, the lowest of all, must be admitted, the position being established by the fact that they are almost wholly ignorant of the simplest industrial arts, such as cultivating the soil, building, pottery making, and so forth. Viewed from a local standpoint, there seems to me very little doubt that the race, strangely isolated as it is from all others, is not only the lowest, but the most ancient of all. Furthermore, I am inclined to the belief that

these singular and most exclusive people constitute a distinct race peculiar to the country itself. There is really nothing whatever to favour the view that this ancient Australian race is a mere fragment of a greater and more widely scattered one. In point of fact the available evidence is on the other side, going to show that it is peculiarly Australian—not a mere fragment, but an independent division, corresponding in this respect with the distinctive prehistoric and existing faunal types. to which I have alluded elsewhere. We find that, unlike all the Caucasian types, this Australian race is non-progressive, over a century's association with civilized life having failed to raise it in the social or intellectual scale. This is all the more remarkable seeing that the tribes inhabiting the northern shores of the continent must, centuries before the advent of British settlement, have been brought into contact with other forms of civilization peculiar to the countries north of Australia. Still, in the face of these powerful standard-raising elements in the life of man, the aborigines of the country have shown no material general improvement, still leading, as they do, a wandering life, indifferent to what to-morrow may bring forth, with little or no conception of the responsibilities of life or care for the future. In language, characteristic ethnological affinity, ethical condition, physical structure and communal life, these people—although divided into numerous tribal sections, ranging the entire length and breadth of the continent for thousands of miles—are indissolubly cemented together as one singularly remote and distinct race. Although a highly primitive people, they have been singled by the scorching vices and diseases of civilized life, the effect of which are only too apparent in the demoralized condition of many local tribes, and the degeneration of the race as a whole. The opium curse has fallen with distressing effect upon many tribes located within the settled districts, and even those near Chinese tenements, in the unsettled and remote parts of the continent, are not free from the influence of the baneful drug, which is decidedly more insidiously hurtful than the notoriously bad rum of the settlers. It is most painful to see how completely both men and women abandon themselves to the opium smoking habit, and how rapidly they sink under its influence. Luckily the Queensland legislature has passed a law

dealing with the opium trade, and this will no doubt have a most beneficial effect upon the natives, who will thus be unable to obtain the article and consequently be obliged to give up the habit to which they have for so long been slaves. But will they really do so? Taking into consideration many apparently far gone cases of complete enslavement to the practice that have come under my own notice in many parts of the continent, it seems to me that whilst the laws of the country may restrict the sale or supply of opium to these native consumers, they will never completely prevent the use of the drug.

It is very difficult and probably impossible to give anything like a fair approximation of the present number of the Australian aborigines. In 1891, when the census was taken, there were said to be 22,910 males and 15,969 females, making a total of 38,879, distributed over New South Wales, Victoria, South Australia and Western Australia. The number in Queensland had not then been estimated, but, assuming it to be about 19,000 souls, we should have for the whole of the continent a native population of about 58,000 altogether. It seems a very great pity that an enumeration of these aboriginal inhabitants should not have received earlier and greater attention in every part of the continent, we should then have been enabled to know how they have been numerically affected by contact with ourselves.

J. P. THOMSON.

Brisbane, 9, 1, '04.

## "THE WORLD'S OLDEST LAW-BOOK."

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**T**HIS is the name given by Winckler to the recently discovered code of Hammurabi. He declares that it is "the most important Babylonian record which has thus far been brought to light." The *Expository Times* says: "The discovery and decipherment of this code is the greatest event in Biblical archæology for many a day. We have in our library the English translation by C. H. W. Johns, M.A., Lecturer in Assyriology, Queen's College, Cambridge, published by T. & T. Clark. The title of this small book is, 'The Oldest Code of Laws in the World.' The Code of Laws promulgated by Hammurabi, King of Babylon, B.C. 2285—2242."<sup>m</sup> Die Gesetze Hammurabis Königs Von Babylon Um 2250 v. Chr. Das älteste Gesetzbuch der Welt Uebersetzt von Dr. Hugo Winckler. Moses und Hammurabi von Dr. Johannes Jeremias. No doubt we shall soon have other specimens of the literature which is gathering round this important discovery. Two important volumes are announced by Dr. Harper, of Chicago. A work that is necessary for the special student is that of Father V. Scheil, which appears as Tome IV, Textes Elamites-Semitiques, of the *Memoires de la Delegation en Perse* (Paris, Leroux, 1902). In this volume the ancient text is reproduced by Photogravure in a way that enables the student to verify word by word the editor's readings of the archaic signs.

### THE MONUMENT.

"The Monument itself consists of a block of black diorite, nearly eight feet high, found in pieces, but readily rejoined. It contains on the obverse a very interesting representation of the King Hammurabi receiving his laws from the seated sun-god 'Samas,' 'the judge of heaven and earth.' Then follow, on the obverse, sixteen columns of writing with 1114 lines. There were five columns on this side, but they have been erased and the stone repolished, doubtless by the Elamite conqueror, who meant to inscribe his name and titles there. As we have lost

those five columns we may regret that he did not actually do this, but there is no trace of any kind as to who carried off the stone. On the reverse side are twenty-eight columns with more than 2,500 lines of inscription."

It appears that for many years fragments of this code have been known and studied by specialists, from internal evidence ascribed to the period of the first dynasty of Babylon, and even called by the name Code Hammurabi. The science of Assyriology has celebrated this year (1903) the centenary of its birth, and those who cultivate it are rejoicing in the thought that they were looking forward with confidence to just such discoveries. This particular find was made at Susa in Elam, the old Persepolis. The explanation suggested is that as the Elamites were the great rivals of Babylonia for centuries, it seems likely that some Elamite conqueror carried off the stone from a temple at Sippara, in Babylonia. The French Government have been carrying on explorations at Susa for years under the superintendence of M. J. de Morgan, and that they do not hide their discoveries is shown by the fact that a monument disinterred in January was copied, transcribed, translated and published in a superb quarto volume in October of the same year.

"A great space, some 700 lines, is devoted by the king to setting out his titles, his glory, his care for his subjects, his veneration of his gods, and incidentally revealing the cities and districts under his rule, with many interesting hints as to local cults. He also invokes blessing on those who should preserve and respect his monument, and curses those who should injure or remove it." (Johns). The translation of this portion is not given in the English edition, as it would be unintelligible without copious comment, and the aim of that small book was simply to bring the Code itself to the notice of a larger public. It may be interesting, however, to extract a few sentences from Winckler's German translation of this part.

Definitions of Right, which Hammurabi, the wise king, has laid down for the land of righteous law and has taught a pious statue. Hammurabi, the protecting king am I. I did not withdraw myself from the men whom Bell presented to me, from those whose rule Marduk gave to me I was not backward, a dwelling of peace I created for them. Difficulties I cleared

away for them, I caused light to shine forth for them. With the mighty weapons which Zamama and Istar lent me, with the sharp glance which Ea appointed to me, with the wisdom which Marduk gave me, I have rooted out the enemies above and below (in north and south), subdued the earth, prepared the land for prosperity, caused the inhabitants of the dwelling places to dwell in peace, and have not tolerated any disturbers of the peace. The great gods have called me, I am the health-bringing shepherd (ruler), whose staff (sceptre) is straight, (just), the good shadow (protection), which is spread over my city; in my breast I cherish the inhabitants of the land of Sumer and Akkad (Babylonia), in my bosom I cause them to rest in peace, in my wisdom shelter them, that the strong may not damage the weak in order to secure the widows and orphans I have set up my precious words written on a memorial stone along with my picture as the king of righteousness in Babylon, the city of Anus and Bell to raise its head in (E-) Sagil the temple whose foundation I have placed firm as heaven and earth in order to declare the law of the land to settle disputes and to repair injuries."

The most distinguished among kings am I. My words are well considered, my wisdom has not its like. On the command of Shamash the great judge of heaven and earth, righteousness shall arise in the land, by the order of Marduk my Lord my monument shall not meet destruction, etc."

Let us leave these modest statements which the king makes concerning himself and take a specimen of the blessings and curses; the richest imagination and most varied vocabulary seems to be applied to the latter. "If that prince meditates upon my words, which I have written in my inscription, does not damage my law, does not exchange my words, does not change my monument, so may Shamash give to that prince, as to me the king of righteousness, a long reign, he shall rule his subjects in righteousness. If that prince does not consider my words which I have written in my inscription, despises my curses, fears not the curse of God, roots out the law which I have given, exchanges my words, changes my monument, blots out my name, or on account of these curses commissions another to do it, may the great God, the Father of the Gods, take

from that man, whether he be king or lord, patesi or citizen, or whatever may be his name, the splendour of his kingdom, break to pieces his sceptre, curse his destiny." This goes on at great length in a style of which the following is a fair specimen : "Shamash, the great ruler of heaven and earth, who sustains all living beings, the lord shall shatter his kingdom, not carry out his right, remove his way, destroy the march of his troops, give him in his dream visions, evil premonitions of the uprooting of the foundation of his throne and the downfall of his country, the judgment through Shamash shall come quickly upon him, above among the living below in the earth he shall cause his spirit to be in need of water, etc."

After hearing the very words dictated by the king of ancient Babylon, which have come to us from a time more than 4000 years away, we may note briefly his position in the history of the world. Hammurabi was the sixth in the series of Babylonian kings of the first dynasty and lived about 2,250 B.C., ruling successfully for 55 years the united Babylonian empire. From certain statements it is inferred that he was not a Babylonian, but a northern Semite belonging to the group of peoples that bear the name of Canaanite. It has long been known from numerous inscriptions and documents that he was the literary king of ancient Babylon, a remarkably capable and gifted ruler who introduced a brilliant era. Historians tell us that he has good right to the title which he claims—"The Sun of Babylon." He not only enlarged the empire by warlike conquests, but also took steps for the advancement of many forms of culture within the borders of his kingdom. It seems to be accepted by specialists that his name is mentioned in Gen. 14, i. It is worthy of note that in the list of cities he speaks of Ur, the home of Abraham, according to tradition, and he says that he made this city rich.

Another word as to the place where this monument was found. It is a story of the chances and changes caused by the fluctuating fortunes of war.

The history of Babylonia since the middle of the second millenium is influenced by the conflict of the two powers, Assyria and Elam, for the old centre of civilization. From this has resulted a frequent plundering of the great cities, on the

one side and the other. If under Tukulti-Ninib in the thirteenth century, and under Sennacherib in the year 689, Marduk, the God of Babylon, had to travel to Assyria, so the first of the Kassite kings in the seventeenth or sixteenth century introduces himself with the statement that he has brought back the statue of Marduk from Chani to Babylon, and the 12-11 century hymns glorify the victory of Nebucadnezzar I, who brought the god from Elam back to Babylon. Plundering expeditions of the Elamite kings against Babylon are known to have taken place at an earlier time, and it is probable that the Elamite, Shutruk-nachunte, and his son, Kutir-nachunte, plundered the Babylonian cities, especially Sippar, and brought to Susa these monuments of the old Babylonian kings. Besides many documents chiseled in stone which deal with the owner of the lands in the region between Babylonia and Elam, and which therefore had an interest for the Elamites, the new lords of these lands, there are at present also two great monuments of general interest. One is a monument which celebrates a victory of the old king, Naram-Sin (about 3000 B.C.) In spite of all curses Shutruk-nachunte caused the inscription to be chiseled out and put his own in its place, which briefly announces that he brought the block from Sippar. The other is the monument with which we are concerned. It has been handled in a similar manner, but only five columns of the inscription have been erased, and the statements of the conqueror have not been set in the place. Perhaps the variety of its contents was the cause of its being thus tenderly treated. (Winckler.) "There were five more columns on this side, but they have been erased and the stone repolished, doubtless by the Elamite conqueror, who meant to inscribe his name and titles there. As we have lost those five columns we may regret that he did not actually do this, but there is now no trace of any hint as to who carried off the stone." It would, of course, be interesting to know the story of this uncompleted act of sacrilege and the timely repentance. It might tell of complicated negotiations or dramatic expostulations. But it is no doubt our duty to be thankful for what we have received rather than to regret that we cannot have more.



THE CODE ITSELF.

The Code contains 282 paragraphs or sections, dealing with a great variety of possible cases. To these, in his edition, Mr. Johns has added three sections which are known to belong to the Code from copies made for an Assyrian in the seventh century B.C., and which he gives for the sake of completeness. He says, "they obviously come within the space once occupied by the five erased columns." If this is correct we have the thing complete. It has been pointed out that the different fragments which have been preserved show that the Code was copied and studied for centuries after its origin.

The Code represents itself as a collection of important laws which regulate the common affairs of life, it can scarcely be called a legal system, for from our point of view it is not very systematic. The most prominent themes are the family and the house, property and inheritance, agriculture and grazing, trade and commerce. The different parts of the Code do not seem to be arranged in any logical order. The transitions sometimes show a suggestion of such an order, and at other times are quite capricious. Thus there is order within particular groups, but no system that dominates the whole.

"Magnificent is the picture of civilization which arises before our spiritual eyes in the Code of Hammurabi. Not dry laws, but everywhere pictures full of life from the reality of a flourishing state. The development had at that time reached a height which in the second millenium was followed by reactionary movement (Amarnad discovery the book of Joshua). We shall find our knowledge transformed since we have become acquainted with the golden age of ancient Babylon. There is in the movement of the life of the people in the old Orient an interference of waves which renders impossible the old way of considering the historical development. We are carried as by enchantment into the middle ages when we pass in review the varied decisions concerning the wages of the hand worker, the art of the architect and ship-builder, the principles which govern trade and commerce, capital and interest. Agriculture bears the mark of intense activity ; weeding and skillful cultivation are demanded in surprising degree by the law. The ground landlord tills his fields by means of slaves or day labor-

ers, or lets out the care of his field and garden by contract. Great emphasis is laid on irrigation and the care of canals. Prosperity and security reign in the land ; the hiding places of bandits have been cleared. The children of the land stand under the protection of a lord who "is as a father for his subjects." For behind the rich, flourishing life we recognize everywhere the strong hand, the mighty will, the kindly temper of this king 'anointed with a drop of social oil.' (Jeremias.) Perhaps the author of this paragraph sees in the picture of Hammurabi that is reflected through the Code a general resemblance to the active and paternal Emperor of his own land."

It may be interesting to make one or two quotations from the Code by way of showing the spirit and style of the legislation. There is no recognition of religion in the Code itself, except such as comes out in such phrases as "That man shall swear by the name of God," (20). "The shepherd (i.e., in case of accident to the sheep,) shall purge himself before God." "The owner of the ship that has been sunk whatever he has lost in his ship shall recount before God," etc. It may be, of course, that this swearing before God required appearance in the temple before the priest. The first two paragraphs deal with something closely akin to religion, namely, sorcery. The following law reminds us of the old method of trial by ordeal, and also of the ancient command, "Thou shalt not suffer a witch to live."

If a man has put a spell upon a man and has not justified himself, he upon whom the spell is laid shall go to the holy river, he shall plunge into the holy river, and if the holy river overcome him, he who wove the spell upon him shall take to himself his house. If the holy river makes that man to be innocent, and has saved him, he who laid the spell upon him shall be put to death. He who plunged into the holy river shall take to himself the house of him who wove the spell upon him. The principle of retaliation receives clear expression ; it is, eye for eye, limb for limb, tooth for tooth, son for son, slave for slave. For example, "if a man has made the tooth of a man that is his equal to fall out, one shall make his tooth fall out." Note the phrase, "of a man that is his equal," that also represent a principle that runs through the Code, as dam-

age to an inferior can be met by compensation in money. Life was a serious business, when a man who brought a charge suffered the penalty of that charge himself if he failed to prove the charge. The doctor seems to have been in a difficult position, as not only was he like the tailor, brick-maker, stone-cutter and others limited to a wage or fee fixed by law, but also the principle of retaliation could reach him, even when exercising his profession, witness the following statute :

If the doctor has treated a gentleman for a severe wound with a lancet of bronze, and has caused the gentleman to die, or has opened an abscess of the eye for a gentleman with the bronze lancet, and has caused the loss of the gentleman's eye, one shall cut off his hands.

In his case the fees are graduated according to the rank of the patient.

If a doctor has cured the shattered limb of a gentleman, or has cured the diseased bowel, the patient shall give five shekels of silver to the doctor.

If it is the son of a poor man, he shall give three shekels of silver.

If a gentleman's servant, the master of the slave shall give two shekels of silver to the doctor.

These extracts may suffice to show how social life was regulated in those ancient days, and the spirit in which it was sought to compel the observance of justice between man and man. The penalties were certainly severe enough, and in some cases justice was vindicated in ways that we would count barbarous ; for example, when it is said of the faithless wet nurse, "One shall cut off her breasts. We turn now to a more direct comparison with the "Mosaic Code."

#### COMPARISON WITH THE MOSAIC CODE.

Similarities. In comparing this Code with the laws found in the ancient Hebrew records, we shall refer to that section of the book of Exodus which is called by modern critics the Book of the Covenant (Ex. xx., 22-xxiii., 33) and believed to contain the oldest legislation.

## THE RIGHTS OF SLAVES.

If thou buy an Hebrew servant, six years he shall serve ; and in the seventh he shall go out free for nothing. Ex. xxi. 2, cf., also verse 7.

If a man a debt has seized him, and he has given his wife, his son, his daughter for the money, or has handed over to work off the debt, for three years they shall work in the house of their buyer or exploiter, in the fourth year he shall fix their liberty. C.H. 117.

## FAMILY LIFE.

And he that smiteth his father, or his mother, shall be surely put to death. Ex. xxi., 15.

If a man has struck his father, his hands one shall cut off. C. H. 195.

## MAN-STEALING.

And he that stealeth a man, and selleth him, or if he be found in his hands, he shall surely be put to death. Ex. xxi., 16.

If a man has stolen the son of a free man, he shall be put to death. C. H. 14.

## INJURIES CAUSED BY ANIMALS.

And if an ox gore a man or a woman that they die, the ox shall be surely stoned, and his flesh shall not be eaten, but the owner of the ox shall be quit. But if the ox were wont to gore in time past, and it hath testified to his owner, and he hath not kept him in, but that he hath killed a man or a woman, the ox shall be stoned, and his owner also shall be put to death. If there be laid on him a ransom, then he shall give for the redemption of his life whatsoever is laid upon him. Ex. xxi., 28-30.

If a wild bull in his charge has gored a man and caused him to die, that case has no remedy. C. H. 250.

If the ox has pushed a man, by pushing has made known his vice, and he has not blunted his horn, has not shut up his ox, and that ox has gored a man of gentle birth and caused him to die, he shall pay half a mina of silver. C. H. 251.

OFFENSES AGAINST PROPERTY.

If a man shall deliver unto his neighbour money or stuff to keep, and it be stolen out of the man's house ; if the thief be found he shall pay double. If the thief be not found, then the master of the house shall come near unto God, to see whether he have not put his hand unto his neighbour's goods. Ex. xx., 7, 8.

Section 9 provides for the case of a dispute concerning lost property, and concludes thus ; The judge shall see their depositions, the witnesses before whom the purchase was made and the witnesses knowing the lost property shall say out before God what they know ; and if the giver has acted the thief he shall be put to death, the owner of the lost property shall take his lost property, the buyer shall take the money he paid from the house of the giver. C. H. 9.

These comparisons could be largely multiplied, as may be seen by reference to the works already quoted. Jeremias cites several places which show points of contact with the narratives of Genesis ; he also traces resemblance between parts of this Code and the legislation in Deuteronomy. But the specimens here given will suffice for our present purpose.

1. C. H. deals more largely with trade and commerce than the Hebrew legislation ; this we can well understand when we remember that it was not until some centuries later that the Jews became in the fullest sense a commercial people.

2. The Hebrew legislation is more distinctly and deeply religious. In this Code there is mention of temple-property and temple-slaves, but no very clear recognition of religion.

3. While both Codes rest upon the same broad platform of stern, strong justice, the Hebrew legislation is more advanced from the point of view of humanitarianism ; it is beginning to transcend the narrow of caste and clan. The demands of justice are in many cases tempered with kindness and mercy.

4. The Mosaic legislation is more subjective and spiritual, it enters the hidden region of the soul and seeks to mould thought as well as guide action. Even in the early laws we can discern traces of those great thoughts concerning God, the soul and sin, which were so richly developed by later prophets, and

which give the distinctive stamp to Hebrew theology and ethics.

THE PROBLEMS RAISED OR EMPHASIZED.

The work of the scientific historian or theologian is to explain these differences and similarities. We were already aware that the O. T. showed signs of Babylonian influence in the region of cosmological speculation and religious custom. The discovery of this Code brings out the same fact more clearly in relation to law and ethics. To deny all connection between the two and to demand from them an entirely separate origin is no longer possible. The old view that regarded Babylonian literature and law as degenerate types of purer Hebrew forms is now put out of court by our more accurate knowledge of the relative dates and positions of these two civilizations. Copying or borrowing in any narrow, mechanical sense is equally out of the question. Both nations, the smaller as well as the larger, seem to have, in their earliest and simplest legislation, been indebted to a common source, probably of Arabian origin. (Jeremias, 47.) The question then arises, how do we account for the differences and in some respects the immense superiority of the Hebrew legislation. We cannot now enter, at any length, into the "Babel and Bible" controversy which has recently created so much stir in Germany. The Kaiser's pronouncement can by no means settle such a matter. In one sense we may say it is never settled; thoughtful men will always discuss the great questions, how does God reveal Himself to men, and what is the nature of the highest inspiration. To some it seems a sufficient answer to say that the one that is later in time developed naturally from the other. On this the comment is made that the statement is vague and incomplete; the greatest things do not grow of themselves, but through the brooding care of the Eternal Spirit, and by the powerful influence of men who felt themselves called to proclaim the truth which in some mysterious way came to them from God. This discussion leads us into the realm of philosophy and theology; we must not now accept that alluring invitation (see the treatment of this subject in a recent volume by Prof. McFayden entitled "Old Testament Criticism and the Christian Church.") One remark may be made in closing, namely this, that while

we acknowledge the importance of recent discoveries and admit the high civilization and potent influence of ancient Babylon in the days long before the Hebrew nation came upon the world's stage, we ought not to forget that during the centuries when the remains of Babylonia were buried and forgotten, that small and comparatively recent people preserved what was best in the ancient scientific life and created an everlasting witness for the God of Righteousness.



# THE NEW ONTARIO SCHOOL REGULATIONS.

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## THE ENTRANCE EXAMINATIONS.

**T**HE subjects prescribed by the new Ontario regulations for the High School Entrance examination are as follows:

Part I: Literature, History, Art Subjects, Physiology and Hygiene, Nature Study.

Part II: Reading (oral and written), Penmanship, Spelling, Geography, Grammar, Composition, Arithmetic.

Candidates are required to pass a written examination set by the Education Department on the subjects of Part II, but all that is required for Part I is that the Principal of the Public School should certify that candidates prepared by him have satisfactorily completed the course of study prescribed.

As we pointed out in a previous number of the *QUARTERLY*, there is no objection to examination when it is an examination conducted by the teacher for his own satisfaction and information. In so far, then, as the new scheme for the Entrance Examination abolishes external examination, it is a step in the right direction. But why should external examination be abolished for the subjects of Part I and not for those of Part II? If external examination is wrong in principle, why should it be applied in the subjects of Part II? If it is not wrong in principle, why is it abolished in the subjects of Part I? Perhaps the idea of the Department is that some subjects are suitable for external examination, whilst others are not. If the subjects of Part I and Part II are selected on that principle, the division is extremely injudicious, for most boys and girls at the age of the Entrance candidates are too nervous to read before a total stranger, or to write with a steady hand, while the commonest words are mis-spelt and the easiest of problems in arithmetic are bungled, simply because the candidate is unable to think with the same calmness as when examined by his own teacher. It is a common occurrence for a pupil to fail on the Entrance



arithmetic who has been in the habit of taking 60 and 70 per cent. at the ordinary test examinations in his own school.

One reason sometimes given for the division of subjects, as in Part I and Part II, is that the subjects of Part II lend themselves more easily to external examination. If this be the case, there is all the more reason for abolishing external examination in the subjects of Part II, for if the Principal of a school is supposed to be capable of examining his pupils in the subjects of Part I, which, according to this argument, are difficult to examine, he must of course be capable of examining them in the subjects of Part II, which are easier to examine than those of Part I.

Another argument advanced for an external examination by the Education Department is that it is desirable to have a uniform test for Entrance candidates throughout the Province. It is, no doubt, desirable that the test should be as uniform as possible, but the external examination does not insure this result. It is true that all candidates are required to answer exactly the same questions in exactly the same time, but the examining board is different at every centre, and there is often a difference of from 40 to 50 per cent. in the marking at the different centres, especially in the subjects of reading, writing and composition. With some boards the failure to take the minimum in physiology and temperance has been the cause of the candidate's rejection, while other boards consider that subject of so little importance that they do not take it into account at all in judging the final results. In any case, to lay down the law that a candidate must make a certain percentage of the marks allotted to reading, writing and composition means nothing. It all depends on the examiner's idea of the standard of excellence required for 100 per cent. On what principle does an examiner give 60 per cent. for writing to one candidate and 70 per cent. to another? Might he not just as well have given 70 to the one and 80 to the other? The fact is that to mark an examination by percentage is absurd except in the case of a very limited number of subjects, and it is still more absurd to suppose that different examining boards at different centres mark the papers with even approximate uniformity. The only reasonable method is to demand a report from each

Public School Principal stating that his candidates have given a due amount of time and attention to the prescribed course of study. In other words, the Public School Principal should have the power to award a High School Entrance certificate when the pupil has reached such a degree of proficiency that to spend another year in Form IV would be inadvisable. The Public School Principal of course may give as many examinations as he pleases to aid him in determining what pupils have reached the required proficiency. The only possible objection to this method is that the Department is afraid to put so much trust in the Principals of the Public Schools. Their word is to be accepted for the subjects of Part I, but not for the subjects of Part II. If the Department is just in its low estimate of the capability or honesty of Public School Principals, it should at once go to the root of the matter and raise the standard of the teaching profession by adopting some such methods for the training and appointment of teachers as were indicated in a previous number of the *QUARTERLY*.\*

In short, it is the teacher who requires to be brought up to a proper standard, not the candidate, and when the Department has brought about this result there will be no longer any need for external examinations.

#### THE JUNIOR LEAVING EXAMINATION.

What we have said with regard to the High School Entrance Examination applies with even greater force to the Junior Leaving Examination. In the case of this examination the examiners who read the papers are mainly High School assistants, and yet the word of the High School Principal is not considered sufficient, although the Principal with the aid of these same assistants has the opportunity of judging the fitness of his pupils throughout their entire course—surely a much safer way of arriving at a just judgment than the more or less haphazard method of assigning marks to a few questions, set by outside examiners who are often not sufficiently conversant with the prescribed courses of study to set a fair paper. If the objection to accepting the certificate of the High School Principal is that there are some High School Principals who are not

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\**QUEEN'S QUARTERLY*, January. 1904.

sufficiently capable or honourable to be trusted so far, then the remedy is the same as in the case of the Public School Principals, and a method should be devised for raising the standard of the profession. The difficulty would be largely obviated if the appointment of Public School teachers and inspectors, and High School Principals, were vested in the Education Department, in which case, of course, the office of Minister of Education should be a non-political one.

#### THE MATRICULATION EXAMINATION.

With regard to the examination for entrance into the highest educational institutions of the country there is need of great deliberation before reaching a fixed conclusion. While an experienced teacher is the very best judge of the requirements of a teacher, and from his intimate knowledge of the prospective teacher during his term of training is in the very best position to judge when he has reached a reasonable degree of proficiency, it is not so certain that the teacher who is preparing matriculants knows just when a candidate has arrived at that degree of proficiency which will best fit him for appreciating the lectures at a given university. At the same time there can be no possible need for examination in so many subjects. In the case of a foreign language, or of mathematics, candidates for entrance to the university must be up to a certain standard. If they are not, one of two things happens : either they are left behind and become an irritating drag for their class-mates, or the lectures of the professor sink below the level of university work. As regards the other subjects at present required of matriculants, examination in them could very well be left in the hands of the Principals of the High Schools. In the case of History, a student at the age of a matriculant can follow the University lectures even if he has never studied the subject at all, and in the case of English Literature, English Grammar and Elementary Science he will be as well prepared as it is possible for a High School to prepare him. Indeed, with regard to elementary science the writer has heard it said in all good faith by University professors that they would rather the candidates had not been taught at all than that they should have been taught as they are taught in many of the small High Schools, where science is taught in a very unscientific manner, owing no doubt

to the lack of proper equipment. But, even in the case of mathematics and languages, we see no danger to the Universities in their accepting the certificate of High School Principals. If candidates are not up to the standard, the Universities have the remedy in their own hands. They have simply to refuse to recognize certificates from those Principals who have sent up ill-prepared candidates. Under such a system as this, there would be practically no ill-prepared matriculants, for it would be suicidal for a Principal to have his school struck off the list of schools whose matriculation certificates were recognized by the Universities.

In the hope that German ideas on educational matters may carry some weight, the writer submits for consideration the following extracts from "German Higher Schools," by James E. Russel, Ph.D. (Dean of Teachers' College, Columbia University, New York):

1. "That incubus of written examinations, which weighs so heavily on British schools, and which is so popular in some parts of America, particularly in the State of New York and some Canadian provinces, would never be tolerated for a day in Germany, not even by the most conservative pedagogue of the old school" (page 176).

2. "No marking by percentages is allowed under any circumstances. The designation of grades, which are officially recommended, is as follows: 'Very Good,' 'Good,' 'Satisfactory,' 'Barely Satisfactory,' 'Unsatisfactory,' (page 177).

3. "Examinations in the higher schools are of two kinds: (1) private, (2) public. The private examinations include the entire round of individual and class tests which are considered in the reports to parents, and which have bearing on promotion. Public examination are for the sake of appearances—a concession to the curiosity and pride of parents. The aim is to give parents, patrons and friends of the school some idea of school life and school work. The public examinations are conducted by the *regular teachers* of the various classes. These public tests are generally severely criticised as being a superfluous and unnecessary strain upon pupils. Private examinations are conducted by the *teachers* at their discretion. For these each school is free to make its own regulations," (pages 178-179).

The report of the Mosely Commission, as published by the *Manchester Guardian* in its issue of April 9th, has this to say in regard to external examinations : "In the Middle West (of the United States) the Universities have adopted an interesting system of accrediting schools whose leaving certificates are accepted as a test for entrance into the University. . . . The University reserves the right to dismiss students found to be insufficiently prepared, and to withdraw from the list of accredited schools any one continuing to send up unsatisfactory students."

If the foregoing suggestions have no influence with those who still believe in external examinations, perhaps the following statement of the cost of our July examinations will have some weight :

FROM THE REPORT OF THE MINISTER OF EDUCATION FOR 1903.

Entrance Examination.....	19,068 candidates at \$1 each—	\$19,068 00
Junior Leaving Examination.....	2,618 " \$5 " —	13,090 00
Junior Matriculation Examination.	1,360 " \$5 " —	6,800 00
Senior Leaving Examination.....	1,066 " \$5 " —	5,330 00
Total.....		\$44,278 00

In addition to the above it was stated in the local House last session that \$19,000 was spent annually for examination purposes. The total yearly cost of the Entrance, Junior Leaving, Senior Leaving and Matriculation Examination is therefore not less than \$63,278.

G. W. MITCHELL.

## FRANCE'S METRIC SYSTEM AND OTHER REFORMS.

**F**RANCE has, to some extent, distinguished herself among the nations by her various efforts towards the simplification and systematization, at least from her own point of view, of the schemes of weights and measures which grew up amongst our forefathers, not through any feeling of a need for a rigidly scientific system, but rather in a sort of haphazard way to suit the exigencies of particular cases.

Of these efforts some have been complete failures, while none have so far been altogether successful, that is, successful in the sense of being generally adopted by other nations, and the greatest success has been along certain lines and principally for scientific purposes.

In these efforts France has been quite iconoclastic. She paid little or no attention to the conditions prevailing in the past, and the systems growing out of these conditions, but started out, in the majority of cases, from some absolutely new unit of magnitude. This might appear to be the best method, and in fact the only method, of placing matters pertaining to measurements upon a sound scientific basis, but it surrounds the introduction of such a system with great difficulties. It will appear to be a question with many people as to whether it is worth while to uproot a long established system for a totally new one, which, after all, may not be so very superior to the one which it has replaced. That which is old touches intimately our relations with the past, and it is doubtful if it is a good policy to destroy or even to any great extent to weaken that connection, or to make it more difficult to be readily understood, for the purpose of introducing a dead scientific uniformity built upon a foundation having no part in old ideas, and a foundation which is not the only one, and probably not the best one available.

These proposals were undoubtedly made in good faith and with the intention of simplifying and unifying the French system of weights and measures, for it can scarcely be supposed that the French people ever expected that the whole world would adopt them. But the French ideas of simplification are sometimes open to question, and it is doubtful in many cases whether these ideas are not even more complex than the ones which they were intended to replace.

At the close of the great French revolution and the "reign of terror," and when the revolutionists thought that they had come into a lengthened term of power, they set to work to tear up the whole measurement system of time, not by the radical attempt to change the length of the tropical year, for with all their folly they were not foolish enough for that, but by starting the year at a new point and dividing it in a new manner.

By the French National Convention of September, 1793, it was decreed that the Republic should form a new era, and that a kalendar should be adopted on philosophic principles.

The Convention of November 24th, in the same year, decreed that the common era, i.e., the Christian era, should be abolished in all civil affairs ; and that the new era should commence on September 22nd, 1792, on the day of the true autumnal equinox, when the sun entered Libra at 9 h. 18 m. 30 s. in the morning, according to the meridian of Paris ; and that each year should begin at midnight of the day upon which the true autumnal equinox falls.

Now, any person who knows anything about the nature of the kalendar will see at once that this is far more complex than the Gregorian kalendar, which it was intended to replace. As a consequence this kalendar of the French republic never crossed the boundaries of France, even if it ever reached out to them, and it died with the republic a few years later, having lived long enough, however, to introduce confusion into this part of French chronology.

In this French kalendar each month was to consist of 30 days, and as 12 times 30 is only 360, the five supernumerary days were called *sans-culottides*, probably best interpreted in English by *rag-tag*, as being a kind of rabble which brought up and closed in the end of the year.

But an extra day had to be added about every four years, and this was left to be regulated, not at first by any kind of a rule, but by the requirements of the equinox ; although later on the reformers saw the absurdity of such a position and established a rule for leap years.

The common week, as such, was also abolished, and each month was divided into Franciads of 10 days each, thus practically forming a decimal week. Now with those reformers, who know nothing but the old and common story with regard to the origin of the week, this setting aside of the week of 7 days was a piece of the boldest sacrilege. But their folly proved their ruin, for the Church, which they utterly disregarded and defied, lent its influence to hasten the overthrow and destruction of their philosophical system.

So much, then, for one of the great French attempts at reforming and simplifying our time measures.

Another presumptive reformation was in regard to the division of the quadrant or right angle. The division of the quadrant into 90 equal parts, each called a degree, has come down to us from the days of ancient Babylonia, and it certainly has served its purpose well and conveniently for a good many thousands of years. But the French people thought to improve upon this by dividing the quadrant into 100 equal parts, each of which they called a grade. They appear to have been so intent upon producing a decimal system that they never hesitated to think as to whether the product was an improvement or not.

Now it is well known to every person acquainted with geometry that one-third of a quadrant is an angle of considerable importance. This, with the present as well as the ancient system, is expressed by 30 degrees. But with the improved French system it can be expressed only by the repeating decimal 33.3333...grades. This in itself is enough to condemn such a system. But also, as it stands at present, the whole circle is divided into 360 degrees, and also into 24 hours of time. So that an hour of time is equal to 15 degrees, and in like manner a minute of time is equal to 15 minutes of angle, and a second of time to 15 seconds of angle. But with the French



system as proposed, an hour of angle would be expressed by a fractional number of grades, &c.

Moreover, extensive and voluminous tables have been calculated at great labor and expense, having the ancient system of angular measurement as their basis. To adopt the new French system would be to render these tables, if not entirely useless, very difficult and provoking in their application. All these things have conspired to condemn this foolish change and vain aspiration after a decimal system, and to relegate the French system with all its belongings to the obscurity to which it properly belongs.

There are certainly some things in nature that do not fit in well with the number 10 and the decimal system, and it is a mistake to try to make them do so.

We come now to consider at some length that innovation known as the "metric system"; a system having its origin in France, and which, unlike those before-mentioned, is not dead or dying, but is extensively employed, and even bids fair to become an international and universal system, if the advocacy of its friends can bring about such a consummation.

Without entering into a particular description of the metric system, it will be sufficient to say at present that its chief and only merits are that it is a decimal system, and that its units of length and of weight are connected in a comparatively simple manner.

It is well known to everybody that where chiefly matters of calculation are concerned, a decimal system is, on account of the decimal character of our notation, the most easily and conveniently dealt with. But it is very doubtful if the decimal system is always the best one for the purposes of barter and exchange. At least the people when left to their spontaneous actions have not found it to be so. The currency system of Canada and of the United States is a decimal one, yet people naturally express the parts of a dollar, not in so many dimes and so many cents, but rather in halves, in quarters, and even in eighths, for  $12\frac{1}{2}$  cents, the price at which so many different articles are sold, is one-eighth of a dollar. In fact the most natural division of the unit for the purposes of barter and sale is into halves, quarters, &c. And when a commodity, such as

flour or sugar, is sold in bulk at so much per 100 pounds, it is the commonest thing to find people buying by the half hundred, the quarter, and even the eighth of the hundred, under the name of a stone of  $12\frac{1}{2}$  pounds. And in Paris, the very centre of the metric system, when a commodity is sold in *kilograms* or *kilos*, the sales in smaller parcels are not usually in 50 or 25 hectograms, but in half, quarter, and one-eighth of a kilogram. That is, in spite of a compulsory decimal system of weights, people persist in dividing up their principal units of weight upon a sort of a binary system instead of a decimal one. Moreover, it is just about as convenient to get along with the British system of currency when in England and having their coinage, as it is to get along with the coinage and system of the United States or Canada when in these countries.

But to come down to particulars, the unit standard of the whole metrical system is a length called the *metre*. And what is a metre? It was intended to be one-millionth part of the length of a meridian of the earth from the equator to the pole. What particular advantage is to be reaped from this peculiar relation it is not easy to see. But this physico-philosophical standard labours under two objections so grave as to render its adoption a piece of folly, if not of stupidity.

In the first place the exact distance from the equator to the pole was not known when the metre was established, even if it is known yet; and it cannot be considered to be a finite and definite known quantity. This much is known, however, that the present length of the metre *is not* one-millionth of the quadrant of a meridian, but the distance between two points arbitrarily fixed in a metallic bar at a given temperature, and kept in Paris.

A much better unit would have been the length of a second's pendulum at sea-level on the equator, for this length if lost a dozen times could be readily re-established by experiment to any degree of accuracy, a fact which does not characterize the meter.

Again, the length of the meter has no known definite relation to any other standard of length that has ever been employed in any country in the world, but it is incommensurable with them all. So that to change from any system to the

metrical one it becomes necessary to do a considerable amount of arithmetrical work in multiplying or dividing by constant quantities extending to several decimal places.

These two objections, based on general principles, are alone sufficient to condemn the general character of the metrical system, even if there were no others. The devisers of the system would have done better to have adopted, for the length of the metre, the French ell or the English yard, which are not so very different from the metre in length, and which would, in a simple manner, have connected their new unit with those which had already been long in use.

It must be borne in mind that the decimal character of the metric system is not a unique advantage, for a decimal division may with equal facility be applied to any unit whatever, so that all the advantages of the metric system could be gained by taking a yard, or a foot, or even an inch, as the unit, and constructing a decimal system upon it.

But the metric system has in itself other grave objections. The undue desire for scientific uniformity introduced a set of long and most objectionable names, names which in their usage become a hindrance instead of a help to a quick and ready comprehension of what the term in reality means.

Thus we have for the different units into which the metre is divided, decimetre, centimetre, millimetre; and for the multiples of the metre we have dekametre, hectometre, kilometre, &c.

Compare these four-syllable terms with the monosyllables mile, yard, rod, foot, inch, and so on, to be found in established and long-used measures, and one sees at once the advantages of the English terms, or rather the great disadvantages of the French ones. In these modern days when people contract "telegraph" into "wire," and "telephone" into "phone," with many similar contractions, they can scarcely be expected to employ a four-syllable term when a one-syllable term is sufficient. To employ the eleven-syllable expression "seven hundred and sixty millimetres" for the average height of the barometer, in place of the four-syllable one, "thirty inches," is a lucid example of wasting time.

Again, I believe that it is generally conceded that the most forceful words in the English language are those monosyllabic

ones which formed parts of the language in its earlier stages and before it had undergone extensive additions in the way of complex derivatives. These are the words which convey to the understanding directly their full meaning, and without the necessity of any form of mental interpretation. And no one can successfully deny that a word like foot or inch is more forceful in its impression than a long derivative like centimetre, or decimetre, in which the mind has to consider the character of the prefix, and the relation of the whole to the metre, before it comes into full recognition of the meaning. Moreover, besides being single syllables, the words mile, yard, foot, inch, &c., are quite distinct in their sounds, and the probability of mistaking the one for the other is reduced to a minimum. But, millimeter and kilometer are long words, differing only in their first consonant sounds, and unless due stress is put upon the first syllable a listener might readily take the one for the other. Now these are objections to the metric system of length measures inherent in the system itself, and similar objections might be shown to exist in the system as applied to measures of capacity and of weight.

In a system with such high scientific pretensions one would expect to find that the square having the unit-length as its side would be the unit area, and the cube having the unit length as its edge would be the unit volume. But such is not the case. The common unit of volume is the *liter*, which is a cubic decimetre, and so on for other units. In fact in all their efforts for uniformity the constructors of the metric system found it advisable to keep as near to the older measures as the circumstances of the case would allow.

Again, the relation that one cubic centimetre of pure water, at zero temperature on the centigrade scale, weighs one gram., and thus forms the unit of weight, is no simpler in practice than the standard British one, that an imperial gallon of water weighs 10 pounds, or 70,000 grains, and principally because the centimetre is not the unit of length.

It is true that scientific men, especially physicists and chemists, have quite generally, although not universally, adopted the metric system into their practice, and this fact is made great use of by advocates of the system to show the ad-

vantages of making the system the only legal and compulsory one in America as well as in Great Britain. But these advocates usually forget to point out the great disadvantages which would follow the general adoption of the metric system.

It is said that a celebrated Scotch physicist, when lecturing to his students some years ago, would stop in the midst of a sentence to remark that "if it were not for the bigoted Tories we would have had the system established in Britain long before now." Whether the professor's inference was justified or not we do not know, but if it were, the British people have reason to congratulate themselves that the "bigoted Tories" held power so long.

The scientific interests of a country are undoubtedly very important, but for the great mass of the people the social and commercial and the trade and manufacturing interest are of very much greater importance, and in devising any system which affects all of these the demands of the latter should certainly precede those of the former. The scientific man is at liberty to devise for his own particular ends any term that suits him, and he never hesitates to do so, and many terms are in constant scientific use which will probably never find their way into the life of commerce and general business. And to force these terms out of their proper surroundings, and into a field of activity where their common or sole use would introduce confusion would be a grave mistake.

When we consider Great Britain and the United States, and all their colonies, both in their present state of activity and in their future possibilities, we are forced to the conclusion that the people who speak the English language form by far the most important element in the civilization, in the commerce, and in the manufacturing processes of the world. And it is becoming more and more evident that if any language shall ever lay claim to being considered the world's universal language, it will not be Volapuk or any such artificial jargon, but the language of these English-speaking nations. In saying this there is no intention of disparaging any language whatever. Now, all the English-speaking people employ the same fundamental units of measure, a foot or a pound is the same in the United States as it is in Canada or Britain or Australia.

For the sake of conciseness of language we shall speak of English-speaking countries as English countries, and the standard foot, inch, pound, &c., as English units.

Every survey made in an English country, whether restricted and local, or geodetic, is made and calculated and registered in English units. Every deed of land states its specification in the same way. Every distance charted on the great trigonometrical maps of the country is given in these units, and to change to some unit not commensurate with them would be to bring inconvenience, if not confusion, into all records of past work and observations along these lines.

Also, every manufacturing concern, and especially every machine shop in an English-speaking country—and there are probably hundreds of thousands of such—would be materially affected for the worse by a change to the metric system.

The leading screw of every machine lathe has so many threads to the English inch. The drills, the drill-presses, the planing and shaping machines, the milling machines, and other small tools, such as taps and dies, too numerous to mention in detail, are all constructed upon the English unit, and all tables employed by the machinist adopt the same unit.

To go to a new, and especially an incommensurable unit, would be practically to render all these machines, if not much less useful, certainly more difficult to manage. For taps and dies and screws, which are 10 to the inch, would be 3.937 to the centimetre.

The argument based upon the loss of time which children make in learning to work with systems not decimal in character, is a weak one, even from an educational point of view ; and if a decimal system of weights and measures must be adopted by all means let a reasonable one be established upon some English unit as a basis. A committee appointed to consider such a system, however, should not be composed solely of scientific men. Let the commercial and manufacturing interests be represented, and let it be tempered with a large quantity of common sense.

It is not difficult to form an idea as to the character of a really good system. It should be commensurable with some standard English unit ; the names of the different units should

be short, monosyllabic if possible, forcible and distinct from one another, and having no parts or prominent sounds in common. The connection between the units of length and that of weight should be definite and easily understood, but it is not a necessity that it should be absolutely simple.

In establishing, by law, a system which interferes to the minimum extent with established custom and usage, there might be some justification. But to compel the adoption of the metric system, with its pseudo-scientific aspect, its foreign origin, its uncouth and polysyllabic names, and its incommensurability with all existing units, would be the acme of legislative folly perpetrated upon a free and trusting community. The governments of both the United States and Great Britain have refused to adopt the metric system, except permissively, and it is to be hoped that the government of Canada will not be persuaded to play the fool.

N. F. DUPUIS.

## COMETS' TAILS.

**H**OW science changes its points of view and adopts new hypotheses as occasion demands is splendidly illustrated by the story of comets and their tails. Since the first explanations of the strange behaviour of these tails given nearly three hundred years ago, even before the foundation of the law of gravitation, there have been plenty of theories propounded, and earlier ideas have been gradually discarded on becoming untenable through improved knowledge of the laws of matter.

The life history of a comet indeed seemed to contain a riddle which no astronomer could fully read, and as such it was regarded as one of the "problems of astronomy." The law of gravitation itself appeared to be set at naught by comets' tails, for instead of pointing towards the sun, being attracted in this direction by gravity, they pointed in diametrically the opposite direction, just as if under the action of a solar repulsion. Could this be a case which showed that gravity was not universal? Or if gravity did act, what was the nature of the force centred in the sun, but which repelled matter so as to form the tail? The various theories of comets' tails have resulted from attempting to find the nature of this force.

After investigating planetary motions and giving to the world his three great laws of motion, Kepler turned his attention to comets. In 1608, he announced that to the best of his knowledge the head of a comet becomes vaporized by the heat of the sun, and that particles are driven therefrom to form the tail by a force of repulsion which was explained easily enough by the then accepted theory of light. According to this theory, the sun is continually emitting particles of matter which travel through space at enormous velocities. On reaching the comet, a portion of the energy of these corpuscles becomes imparted to the cometary material, and there results a tail pointed away from the sun.

Newton, in 1687, did not entirely accept this explanation. While believing implicitly in the emission theory of light, he



tried to prove that gravity was universal, and consequently, that all celestial motions were the result of gravitation, and, therefore, he thought the repulsions producing comets' tails were apparent only, and not real. This made it necessary for him to imagine that the universe was filled with a gaseous medium denser than the matter forming the tails, and in which they were buoyed up as the smoke of a locomotive floats in air.

Euler, in 1744, seemed to have clearly seen the difficulties in the way of assuming with Newton a gaseous medium throughout space, and returned to the first ideas of Kepler. However, he no longer believed that light consisted in the emission of material particles, but thought it, as we do now, to be the result of wave motion. The repulsive force took its origin, according to Euler's ideas, from mechanical impacts caused by these waves.

The chief advance in the history of comets during the eighteenth century was to show that a comet's head obeyed the law of gravitation, even if its tail did not. Halley calculated an orbit for the comet which he observed in 1682, and finding that this comet described the same path as those observed by Peter Apian in 1531, and Kepler in 1607, predicted that it would appear in 1758-9. "So fully was he alive to the importance of the announcement that he appealed to 'candid posterity', in the event of its verification, to announce that the discovery was due to an Englishman. The prediction was one of the test questions put by Science to Nature, on the replies to which largely depend both the development of knowledge and the conviction of its reality. . . . Halley's comet punctually reappeared on Christmas Day, 1758."

The nineteenth century at its beginning had Olbers to rely on to clear away the difficulties by his pioneer work on the motion of comets. "Olber's method" of determining the orbit of a comet was universally adopted, and at the present time is still regarded as the most expeditious and convenient method of calculation, when extreme refinement is not required. Although only an amateur in astronomy—he was by profession a physician—his name stands writ in large letters in the history of cometary discoveries. In his time electricity was beginning to be studied and its phenomena to be investigated by the ex-

periments of Colomb (1758). In electricity was manifested, for the first time, repulsions between material particles. The investigations of Olbers showed him that the heads of comets obeyed implicitly the law of gravitation, but, on the other hand, the tails as if repulsed acted from the sun. After discarding, in 1812, both the views of Kepler and Newton as untenable, since they could not be based on experiment, he very naturally assumed that these forces might be "something analogous to our electrical attractions and repulsions." This explanation, to be valid, should rest on two physical facts: First, that the sun has a constant electrical charge; and, second, that the comet's tail is charged with electricity of the same sign as that of the sun. However, at the present time, we know nothing of the electricity of the sun, except through its magnetic effects on the earth, and we do not even know whether the sun's charge is plus or minus.

Since electricity explains repulsion, it is easy to see why the theory of Olbers should be accepted and held, even up to the present time. As the force due to electricity decreases with the square of the distance (as also do light, heat and gravitation), Bessel was able in 1836 to compute the magnitude of the repulsion from the curvature of the tail of the comet of 1811. Since 1870 the Russian astronomer, Bredichin, with this idea has measured the curvatures of about forty comets, and has found their tails to be of three types:

1. Long, straight tails, for which the repulsive force is 18.5 times the sun's gravitational attraction.
2. Plume-like tails, with a repulsion 3.2 times gravity.
3. Short, stubby tails, with a repulsion of 2.0 and 1.5 times the attraction of gravity.

The electrical theory seemed to furnish a satisfactory explanation of repulsive forces, and it was accepted by Bredichin. The attraction due to gravity depends on the masses of the particles acted upon, while the magnitude of the repulsive forces varies in amount according to the surface area. If the particles that make up a comet's tail are all of the same mass, they will be attracted to the same amount by gravity. If these particles are of different substances, those with the least density will have the largest volume and area, and hence, the magni-

tude of the electrical forces will be greater, and so will vary inversely with the densities of the substances. According to Bredichin, therefore, the long, straight tails consist of hydrogen, the curved plume-like ones are of hydrocarbons, while the third tail is made up of metallic particles, chief among which are iron and sodium.

The spectroscope has shown that these metals are in the head of a comet, and they are of about the correct specific gravity to give the repulsions calculated from the curvature of the tails. But no comet has been bright enough to thoroughly test the light of the tails spectroscopically, and the proposition of Bredichin's is still only a hypothesis, but one, unfortunately, with no sound physical basis.

Very different, however, is it with the very recent theory of Arrhenius, the Swedish astronomer, which explains nearly all the phenomena connected with comets' tails by means of the pressure of light. As long ago as 1873, Clerk Maxwell propounded the Electromagnetic Theory of Light. One direct consequence of this theory is that light must exert a pressure on every surface on which it impinges. Maxwell was able to calculate the pressure of the sun's light at the surface of the earth, but the amount is too small to be detected, even by our modern delicate methods of measurement. Very much greater, however, would be this pressure at the sun. To visualize our conceptions, let us imagine at the surface of the sun a cube of water, one centimeter each way. The pressure exerted by the sun's light amounts to  $27.5 \times 10^{-4}$  grams. As superficial gravity is 27.47 times greater on the sun than it is on the earth, the cube of water weighs 27.47 grams at the sun instead of one gram as on the earth, and, consequently, the weight, or attraction by the sun, is ten thousand times the pressure, or repulsion due to light. If we imagine the size of the water drop decreased, the weight decreases as the cube of the side, while the pressure only as the square, and thus the weight decreases the faster; and if the water particle is one millimeter each way, the attraction of gravity is only one thousand times the repulsion due to light. And so, if the cubic drop of water is the one-thousandth of a millimeter on each edge, the attraction of gravity is just equal in amount

to the repulsive pressure of light. Make the size of the water particle any smaller, and it will be driven away from the sun, acting exactly as if gravity had become negative. The one thousandth part of a millimeter, or the one millionth of a meter, is called a *micron*, and is usually denoted by  $\mu$ . This is the unit of length employed to measure the vibrations of light. If the drop of water were spherical instead of cubical, as considered above, the critical diameter, when the attraction is just equal to the repulsion, would be  $1.5 \mu$ . We are not unfamiliar in nature with particles of matter of this size. Particles of Lycopodium powder are, perhaps, equal to  $2 \mu$  in diameter.

On a trip to Sumatra to view the total eclipse of the sun on May 18th, 1901, with an expedition from the United States Naval Observatory, the writer had a splendid opportunity to see the volcano Krakatoa. The jagged appearance of the north-western portion of the island showed very clearly where a quarter of it had been blown away, and where had formerly been a hill, nearly a mile in height, the ocean has crept in and bottom cannot be now found with soundings of one thousand feet. The explosion which caused such remarkable changes in the configuration of the Straits of Sunda was the most terrific one of which we have any record. The tidal wave resulting from it at one place carried a Dutch man-of-war on the coast of Sumatra a mile and a quarter inland, and beached it seventy-six feet above high water mark, and this wave, which was even felt in the English channel, 11,000 miles away, caused a loss of forty thousand lives. The air wave sent out by the explosion was traced by barometers through seven complete circuits of the earth; and the noise of the explosion was heard even in the island of Ceylon, two thousand miles away. Large quantities of dust were thrown up to great heights, and it was in such a finely divided state that it took many months to again descend to the earth's surface. This dust was carried by winds and air currents to all quarters of the globe, and there resulted the brilliant and beautiful sunsets of 1883. Since the small particles of matter were suspended in the air for such a long space of time, they must indeed have been almost infinitesimal, with diameters, comparable in size with  $\mu$ , the one millionth of a meter.

Therefore, in putting forward a theory of comets' tails where the force of repulsion is the pressure of light exerted on particles whose diameters are of a magnitude approximating this small fraction of a meter, Arrhenius is not proposing an impossible theory, at least as far as the size of the particles is concerned. Theoretically, pressure of light follows as a direct consequence from Maxwell's Theory of Light, if this pressure could by anyway be found by experiments in the physical laboratory, the whole proposition of Arrhenius would have a secure foundation. Quite recently Professors Nichols, of Columbia University, and Hill, of Dartmouth, working together have performed some interesting experiments, and have succeeded in making a laboratory comet's tail. This remarkable result was obtained by putting into an hour glass, from which all the air had been carefully exhausted, a mixture of emery and Lycopodium powder. The hour glass was held vertical in order to allow the powders to run through, and at the same time a strong horizontal beam of light was directed at the small part of the glass. The repulsive action of light pressure on the emery was such a small fraction of the attraction of gravity that there was practically no deviation from the vertical. For the smaller particles of the lighter powder repulsion and attraction were more nearly equalized, they were deflected from the vertical direction, and the illumination caused a resemblance to a comet's tail, which was very striking indeed.

Since there is such a sound scientific basis for this light pressure theory, let us see how comet's tails are probably formed. The attraction of gravity decreases as the square of the distance from the sun, so also do the heat, the electrical forces, the intensity of the sun's light, and the pressure due to this light. Therefore the ratio of the attraction of gravity to the repulsion due to light pressure will be the same no matter what the distance of the comet from the sun, and will depend only on the size of the particles forming the tail. A particle whose diameter is greater than a certain critical diameter will be attracted towards the sun, and those less than the critical diameter will be repelled from the sun. The spectroscope tells us comets are made up mostly of hydrocarbons, the critical diameter for which is  $1.9 \mu$ . When the comet in its orbit approaches the



sun, some of the materials of which it is composed are volatilized by the sun's heat. The form of the comet's tail depends on the size of the drops into which the vapours condense. If they have diameters greater than the critical value they will move toward the sun and form a tail in this direction, as has been seen many times. If the drops are smaller, they will move away from the sun, and tails of different curvatures will result depending on the size of the cometary particles (the comet of 1744 had no less than five tails).

From the curvature of the tails Bredichin calculated the repulsive forces to be 18.5, 3.2, 2.0 and 1.5 times gravity for four separate tails. On the light pressure theory of Arrhenius, the size of the particles forming the tails would be  $0.1 \mu$ ,  $0.59 \mu$ ,  $0.94 \mu$ , and  $1.25 \mu$ .

This theory clears away most of the difficulties in the way of explaining the strange appearances of comets and their tails, and in particular tells why a comet like the great one of 1882, which was 200,000 miles in diameter at the head, 10,000,000 miles in diameter at the extremity of the tail, 100,000,000 miles in length, is able to swing round close to the sun in a few hours, and still have the tail directed away from this sun of ours, which has a volume over a million times greater than that of the earth, but which, nevertheless, is only one eighth-thousand part of the bulk that the comet attained. The tail, strictly speaking, is not an appendage of the comet, but is formed of materials that are continually being sent off into space. Kepler, three hundred years ago, was undoubtedly right when he said that comets were consumed by their own emissions, "*Sicut bombyces filo fundendo, sic cometas cauda exspiranda consumi et denique mori.*"

This theory is of such exceptional interest to the astronomer that the writer has sought to find what information the comet of 1903 could give on this subject. From a popular standpoint, the appearance of this comet of last summer was a great disappointment. Bright at its discovery, a close approach to the sun, and visible all night in the northern heavens, it was thought that the comet might become very conspicuous. It was at no time brighter than the second magnitude, and possessed a tail only a few degrees in length. This comet was photo-

graphed nearly every clear night by Mr. Sebastian Albrecht, of the Lick Observatory. From the curvature of the tail as measured on the photographic plates, the writer has calculated the force of repulsion emanating from the sun which caused the tail. It was found that there were tails of three separate curvatures corresponding to repulsions of 18.4, 1.8, and 1.4 times gravity. The first of these is the prominent tail, and on Bredichin's theory would be composed of hydrogen.

The only satisfactory hypothesis to account for the many peculiar phenomena of comets' tails is the recent one of Arrhenius. The diameters of the particles forming the three tails of the comet of 1903 must have been 0.1, 1.0, and 1.33 microns, or millionths of a meter, and the force causing the apparent negation of the law of gravity, that all bodies attract each other, is caused by the pressure of light.

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Columbia University,  
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May, 1904.

## SYMPOSIUM ON CHURCH UNION.

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### CHURCH UNION.

**C**HRISTIAN Unity and Church Union are not convertible terms. Amid all the divisions of Protestantism there has always been a certain amount of unity—the unity of a common aim, a common motive, and a common spiritual life. Of late years the manifestations of this underlying unity have wonderfully increased. Ancient asperities have been softened; mutual misunderstandings have been removed; in Christian utterances the irenic has very largely taken the place of the polemic, and denominational exclusiveness has been compelled to bow to the new spirit of interdenominational fellowship. But Christian people generally are coming to feel that however gratifying all this may be, it does not fully meet the requirements of the case. The increasing prevalence of the spirit of Christian unity has begotten a widespread longing for corporate church union.

Canada has the honour of being the pioneer in this important movement. Nearly thirty years ago Presbyterians led the way in the matter of closing up their denominational ranks and consolidating their forces for the performance of their work; and the example thus set was followed a few years later by the Methodists. What a magnificent thing it would be if this young land of ours could present to the world the impressive spectacle of a united Protestant Church! For the present, unfortunately, this can only be a dream; for so long as any church refuses to recognize the legal standing of the members, or the validity of “the orders” of the ministers, of other churches, the question of union with that church cannot even be discussed.

There is no such insuperable barrier to the union of Presbyterians, Methodists and Congregationalists; and the proposal for their organic union has been received with very general approval. We must be content, however, to “hasten slowly,”



for there are many difficulties in the way. If the negotiations for union are to have a successful and satisfactory issue the key note of the whole discussion must be, not *compromise* but *toleration*. To insist upon the rejection by any of the contracting parties of anything—in doctrine or polity or methods of work—that they believe to be taught in the Word of God, would be to foredoom the whole movement to the worst kind of failure. If there be thorough unity in all things that are vital and essential, the utmost liberty may surely be allowed in all non-essentials.

There are also innumerable details connected with church property, beneficiary funds, college consolidation, educational qualifications for the ministry, and the relative merits of the itineracy and the settled pastorate, that will require the most careful consideration and the most delicate handling; and on some of these debatable points the union movement will be certain to be shipwrecked unless there is a profound conviction in the hearts of all concerned, that the object sought to be accomplished is worth making sacrifices for. What basis is there for such a conviction?

*First:* The proposed union would be pleasing and honouring to the Lord Jesus Christ. This is the supreme consideration. The weightiest argument for union is found in our Lord's prayer for his disciples: "that they all may be one, as Thou, Father, art in me and I in Thee, that they also may be one in us, that the world may believe that Thou has sent me." Even those who contend that that prayer would be answered by a wider diffusion of the spirit of brotherliness among the different branches of the Church of Christ must surely admit that the prayer would be more fully and more strikingly answered if the spirit of brotherliness should find expression in external, corporate union. To be thoroughly effective for the purpose specified, spiritual union must have visibility. How much conviction of the divine mission of Christ is likely to be aroused in the heart of the world by the sight of the scores of rival sects into which the Church of Christ has been split up?

*Second:* The proposed union would vastly increase the influence that the members of these churches can exert upon the public life of the country. One of the functions of the



Christian Church, especially in a new land, is to mould public opinion, and sometimes to give clear and emphatic expression to public sentiment, on great moral issues. Surely that function would be exercised far more effectively by these three churches if they were organically united. Numerically, the Methodist and the Presbyterian Churches are the two strongest Protestant denominations in the Dominion; the Methodists having a large majority in the Province of Ontario, while in each of the other Provinces the Presbyterians take the lead. According to the last census, the Methodists numbered 916,886, the Presbyterians 842,442, and the Congregationalists 28,293. The numerical strength of the united church would therefore be in the neighbourhood of *two millions*. With what a tremendous emphasis such a body of Christian people could speak if any vital interest of the country should ever be in serious peril?

*Third:* The proposed union would do away with the waste of the sinews of war that the present state of things involves. In the great centres of population this evil is not apparent; in fact it is practically non-existent, for even with a united church there would need to be in the large towns and cities almost as many congregations as there are at present. But in smaller communities and in rural districts it is no uncommon thing to find two or three small congregations belonging to as many different denominations, each struggling for a bare existence, and each, perhaps, drawing money from the missionary fund of the denomination it represents, when one church edifice would afford ample accommodation for all the worshippers, and one earnest servant of Jesus Christ would be able to minister to the religious needs of all the inhabitants.

All over the country this scandalous condition of things is met with; but it is especially noticeable in the newer districts, where the people must depend for their enjoyment of religious ordinances upon the assistance of their brethren in older and wealthier communities.

The Presbyterian Church has 304 Home Mission fields west of Lake Superior, and in a considerable number of these fields there is no religious work being carried on by any other denomination. The mission fields belonging to the Methodist Church number 142. In a very few of these fields the Metho-

dist Church is the only church that is giving service, but in the vast majority of cases the missionaries of both churches are on the ground, and in some places the Congregational Church is also represented. In the course of time there will, doubtless, be need for more than one congregation in many of these localities; and therefore, so long as these churches remain apart and people clamour for the religious services of their own denomination, comparatively little can be done to prevent this multiplication of organizations with its consequent wasteful expenditure of men and means.

*The organic union of the churches is the only practical solution of the difficulty.*

E. D. McLAREN.

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#### SHALL WE HAVE A CATHOLIC CHURCH IN CANADA?

There are reasons for greater consolidation of Christian forces in any part of the world, and especially in Canada, which it is almost impossible to realize too strongly. One of these is the economic argument of the wastefulness of rival and overlapping organizations. Another, and even more serious one, is the jealousy that seems inseparable from the rivalry, and which is most acute where the rival bodies are most alike.

In spite of these and other weighty reasons, however, the merging of distinct churches in a union might conceivably be resisted by those who love their own denomination more than they love the kingdom of God, and these features in their own denomination which are of less importance and of doubtful value more than those which are greater and more precious.

Such a sentiment is, perhaps, not amenable to reasoning, and we can only rejoice that there is good reason to believe very little of it exists in the three Churches now considering union.

A possible disinclination to organic union, however, of a different character might spring from the idea that the Christian life finds richer and more complete expression in a community possessing a variety of independent Churches. Diversities of temperament, taste and religious experience, it may be thought, will be more likely to meet with recognition and satisfaction

under such circumstances than where the different forms of church organization and worship have coalesced. So far as this objection involves dissatisfaction with a narrow and fractional conception of Christian experience and worship it is wise and well grounded. Diversity would clearly seem to be one of the great ends of God. The whole course of history is an ever greater differentiation. Evolution, indeed, has been summed up in a memorable formula by one of its most noted exponents as "the change from an indefinite or incoherent homogeneity to a definite, coherent heterogeneity, through continuous differentiations and integrations." The coherence, it will be to the interest of our argument later to note, increasing with the heterogeneousness. In the man as compared with the amoeba, in the city as compared with the group of wigwams, in the Christian life and literature and organization of to-day as compared with those of A.D. 100, we see that progress means development in diversity and complexity.

Obviously, then, it would be turning the hands of the clock backward to try, out of churches with different lines of development, different forms of worship, different types of religious thought and feeling, to make one church with one form of worship, dominated by one type of Christian life. Religiously such a consolidation would impoverish the community, leaving religious needs now met in the different churches without provision.

But no such union is contemplated to-day by the three Churches in which with such extraordinary suddenness and unanimity the idea of closer relations has become a practical question. Presbyterians do not wish to presbyterianize Methodists. Methodists would recoil from a union that would involve the disappearance of the characteristic excellences of Presbyterianism. Nor do these connexional churches wish by their weight of numbers unitedly to drown out what is distinctive in Congregationalism. The ideal sought by combination is a church comprehensive enough not to exclude one precious element in each of the uniting churches, a church whose provision in worship and modes of work will be as rich and varied as what the uniting churches now offer, a church that will be hospitable to all the types of Christian experience that now find a

home in the uniting churches. Nay, the opportunity is afforded by such a union to achieve what has not been known on earth since the days of the apostles, a church at once organically united, evangelical and catholic. There have been churches catholic in creed but lacking organic connection. Other churches, sufficiently comprehensive, have abandoned the evangelical faith. Others, again, evangelical and organically united, have shown imperfect catholicity.

Not one great connexional church of to-day has the right to call itself catholic. Not one of them is as hospitable as the apostolic church. All have added conditions of membership not laid down by the Church of the Acts.

A weighty argument for this union is that it will make it easy for two great churches at least to do what great churches find it hard to do without some peculiar combination of circumstances,—to revise their conditions of membership. The Presbyterian Church has narrowed the entrance doctrinally; the Methodist ethically. The opportunity and the Providential call is now to form a church which will exclude none whom the Church of the apostles would have received. The only requirement of the apostles was faith in the Lord Jesus Christ. Often the highest wisdom of reflection is to copy the instinct of the child. The deeply-experienced Church of the twentieth century must consciously return to the unconscious simplicity of the Church of the first.

The outcome, therefore, of this unprecedented movement, we may hope, will be a Church which will be a home for every form of belief and experience and worship consistent with loyalty to the supremacy and pre-eminence of the Lord Jesus Christ. And if such an ideal be realized, a fitting name for the new Church, a name at once appropriate and distinctive, would be the Catholic Church of Canada.

The opportunity is a great one.

This union, then, so far from impoverishing the Church life of the community, will enrich it, for it will give freer scope to the normal movement of the human mind toward that diversity which, as Spencer's formula indicates, is essential to unity as distinguished from mere aggregation.

But an additional argument in favour of this union is found in the fact that not one of the Churches involved any longer represents a specific type. The Methodist is no longer one, but many. The same is true of the Presbyterian, and has always been true of the Congregationalist. Little by little, not without some warm opposition and some indignant or despairing withdrawals, these Churches are becoming heterogeneous and comprehensive. There are still those who contend for uniformity in opinion and mode of worship, but they fight against a current that in all the great churches sets irresistibly toward heterogeneity. A church, indeed, can only preserve its primitive homogeneity by expelling, generation after generation, a large portion of its own children.

There is a variety of thinking, a variety of taste, a variety of religious experience in the Presbyterian and Methodist Churches which must, in any event, soon be frankly recognized. In the Methodist Church there are natural Anglicans, natural Salvationists, natural Presbyterians, so Presbyterianism to-day has its Anglican episcopacy, its Methodist evangelism. In the United States, indeed, it may be questioned whether it is not more Methodistic than Methodism. Certainly there are Methodists more Presbyterian than some Presbyterians, and Presbyterians more Methodist than some Methodists.

New lines of cleavage have appeared, not vertical like the old, but horizontal. And since, as I think, we have all made up our minds that these differences in a church are no longer to be regarded as reasons for division, but rather as the strongest reason for fellowship, that true and healthy and helpful fellowship that can only exist in diversity, each of the great churches is on its way to becoming a catholic Church—a Church commensurate with Christianized human nature. When the process has gone a little further they will be homogeneous in their heterogeneousness—alike because each is manifold.

When they are on their way to the same goal why should they keep apart? To sum up, it will be, I think, apparent that this movement toward Church union is no mere dream of visionaries, no casual excitement, no spasm of popular enthusiasm, but the outgrowth of deep Christian instincts, and of a

long, historic process. Union will simply facilitate and perfect an evolution that is inevitable. Each of the uniting churches embraces a diversity, but a diversity still struggling blindly in the shell. Union will break the shell and give free play to the forces that make for the diversity that means progress, enrichment, fellowship, unity.

This free play must be given, with union or without it, and the sooner the better. The aim is not out of three sects to make one big sect. It is, something far nobler, to create a church adequate for the full expression of the Christian life—a catholic church, the first, or at any rate, the first to understand its own catholicity and to know how to preserve it.

The value of such an unprecedented achievement can scarcely be over-stated. It means a unity, not, as the primitive church, based on immaturity, nor as in the mediaeval church, on uniformity, but on freedom—the freedom of the Spirit of Christ. It will mean a new era. What the Copernican system has been in astronomy, and the discovery of America in politics, and the doctrine of evolution in biology, this will be in the history of the Church.

The honour of so splendid and fruitful an achievement we must all covet for Canada.

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#### CHURCH UNION.

The deliverance of the committees which met in Toronto recently, "that organic union is both desirable and practicable," has brought the question of Church union down from the air and put it solidly on the ground. It has become a live topic and is clearly inside the circle of "practical politics." It is now proposed that three denominations—the Presbyterian, Methodist and Congregational—shall become one denomination, bearing a new name and standing on a new foundation. The magnitude of this proposal cannot be over-estimated. As has been said, nothing more influential, in its possible effect upon the development of Canadian life, has ever been projected—not even the confederation of the Provinces, the building of



the C.P.R. or the projection of the G.T.R. The whole religious life of this country will be affected, and through it all other life.

So far the expressed opinions have been, with one or two exceptions, more than favourable. Whether these opinions will stand the test of discussion in the denominational meetings is yet to be seen. It would be a marvel were such a scheme to go through unchallenged and unopposed. Even if the general principle be accepted, the working out of details will prove a fertile source of objection and difficulty.

It is a good thing, however, to see clearly what is to be done. There are two issues over which controversy may be expected. The first is theological; the second a question of polity. The theological issue will concern the Presbyterians and Methodists more than the Congregationalists, not that Congregationalists are less interested in theology, but there is less rigidity in their system. The theological battle will be mainly between Presbyterians and Methodists. It would seem an impossible task to reconcile their differences. But it need not be. Methodists believe in the sovereignty of God as well as Presbyterians, and Presbyterians, for all practical purposes, are as insistent upon the freedom of man as are the Methodists. The new church must take up and embody both doctrines. The only thing that Congregationalists will demand is that the right of private interpretation and individual liberty shall be properly safeguarded. There are many in both the other churches who will join heartily in that demand. The tender point with the Congregationalists is the question of Church Polity. They have stood not only for the independence of the Church so far as the State is concerned, but also for the absolute independence of each local church so far as all other churches are concerned. That will be our difficulty. Can it be overcome? We think it can. There is no doubt that many wise and loyal Congregationalists are convinced that the idea of independence has been carried so far that it has weakened effective effort.

If such a union is possible, and I for one believe it is, now is the time and this country is the place to bring it about. From every standpoint—economy in money, conservation and distribution of energy, and, above all, the exhibition of the real



spirit of Jesus—comes the call to meet this question and settle it to the advantage of the Kingdom of God.

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THE UNION OF CANADIAN PRESBYTERIANISM, METHODISM  
AND CONGREGATIONALISM.

A BAPTIST VIEW.

In part the movement towards Church Union is profoundly spiritual. That far it should have the most earnest consideration and sympathy of all Christians, even of those who in some sense stand outside of its strong current. When such men as Principal Caven give themselves whole-heartedly to a cause, that cause gains at once a dignity and consequence which must not be under-rated.

In part the movement towards Church Union is psychological. "Psychological moment," that phrase of the better slang of to-day, may be applied in this connection. It is apparent that we are nearing the "psychological moment" for a closer union of Christian organizations than we have known in centuries. Many of the forces tending to this end are this-century forces. It is an age of combinations. The spirit of a practical socialism is widely dominant. Individualism is at a discount. Large things appeal to the imagination. Little things are looked upon with scorn. Values are estimated in terms of the yardstick and the weighing scales. We like to talk about numbers. That this age-spirit is moving men towards church union is beyond dispute, for the movement has among its most enthusiastic supporters many who are unspiritual or altogether worldly, men who, though they may go to church on the Lord's day, would not claim an experimental knowledge of religion. The advocacy of a thousand such men as these deserves less consideration than the doubts of one man like Professor McLaren of Knox College.

The movement towards Church Union is quickened by what may be called the commercial spirit, or that phase of the commercial spirit that seeks greatest gain at smallest cost. By

Church Union it is claimed that waste would be avoided, weakness eliminated, and resources effectively utilized. The lonely places would be no longer overchurched. Pastors now struggling in poverty would be properly nourished with food for body and mind. No longer would the business man's spirit and habit of thrift and economy be scandalized by seeing three or four churches serving badly a community which might be better served by one church. In our age great deference is paid to the "business man" and "the man on the street." What, it is asked, does the man who wins when he speculates in stocks think of our educational systems? What is the successful merchant's opinion of our theological doctrines? Does the insurance agent approve of our methods of winning souls to our Lord Jesus Christ? No wise man will fail to learn from the business man, whatever may be the subject to which he brings his mind trained in practical affairs; but every wise man at the same time will recognize that in the realm of mind and soul care must be taken lest too large place be given to the judgment that is formed with chief regard to material things.

The movement towards Church Union is meeting little resistance where once it would have been strongly resisted partly because convictions are held less tenaciously than formerly. It is only partly true that the Calvinist of to-day is half Arminian, and the Arminian half Calvinist. It is more true that the Arminian is less enthusiastic in doctrine than formerly, and the Calvinist less determined. Truth expressed in doctrines has not the sanctity it once had in the minds of Christians. The tendency has been away from forms of belief to forms of conduct, and there has grown up a scepticism as to whether conduct has so close a relation to belief as was once held. When truth is not revered for its own sake, and is thought to have only a little practical value, it is not to be expected that men of gentle spirit will contend very earnestly for its maintenance and emphasis.

The spirit of neighbourliness, more prevalent in this age than in any former age, gives impetus to the movement for Church Union. Men are more peaceable than formerly, more desirous of getting on agreeably with others. The closeness of business contact and relationships in the modern business world

accounts, in some measure, for this. Men of various doctrinal and ecclesiastical opinions mingle daily in business, have common interests, see eye to eye in matters of material concern ; and at length, being perhaps not greatly absorbed in matters outside of business, they wonder if it is worth while to insist strenuously upon doctrinal and ecclesiastical differences.

Those who advocate church union for reasons of economy must show that on the whole this economy would be worth while. In small over-churched communities there would be gain, but it may be doubted whether one very strong church in a village would serve the community as effectively as two churches of moderate strength. We are not dealing with perfect pastors and perfect churches in this world, but with churches liable to slacken their diligence if they have an ecclesiastical monopoly in a community. It is still necessary, in the practical affairs of church life, to provoke one another to good works.

Those who believe that organic union would lead to a realization of the Lord's prayer, that all may be one, are more optimistic than the present condition of the churches warrants. Organically the Anglican Church is a unit, but actually there is greater variance between the two wings of that Church than between any two denominations. It sometimes happens that when you bring close together people who differ, their differences becomes more acute. For example : If to-day a denomination holding strongly to the total separation of Church and State were organically united with a denomination in favour of using State funds for Church schemes or institutions of the State for the propagation of religion, conflict would be inevitable, and that conflict would certainly become bitter and divisive. There are also doctrinal differences of growing seriousness, and especially differences in relation to Biblical interpretation, which are much more divisive in their nature and trend than our present ecclesiastical differences. Many Christians of various Churches are united in closest bonds of fellowship around certain doctrines, who are much less closely united with other brethren of their own denominations respectively. No one who loves closeness of sympathy among Christians, and the spirit of unity and peace, can survey the present

situation within the churches without some measure of foreboding. There may be those who hope that organic union would help to avert the danger from variance within the denominations, but upon what this hope is based it is difficult to see.

There is large hope in the spirit in which the whole question of Church Union was approached at the Assembly in St. John. There was less hope when there was less seriousness, less sense of the difficulties to be faced, more of a disposition to brush aside as worthless, antique rubbish every doctrine and practice which stood in the way of union. A few weeks ago there seemed to be danger of a stampede. Now we may hope for solemn, devout, earnest consideration of the great questions at issue, with a patient attempt to comprehend the convictions of others and the ground and significance of such convictions.

The views of Baptists on the proper relations of Church and State and the proper subjects and mode of baptism are so strongly held that any co-operation with others holding different views must follow lines quite other than those thus far proposed by the advocates of Church Union.

Whatever may be the outcome in the immediate future of the present agitation for Church Union, every Christian should pray earnestly that love and confidence among Churches may abound more and more.

O. C. S. WALLACE.

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AN ANGLICAN VIEW.

Nothing could ever, I think, persuade me that when our Lord prayed that "we all might be one," that He meant that that kind of oneness may be found in such a state of dis-union as the whole Christian Church, or the Protestant portion of it, presents to the educated heathen onlooker to-day. If there is worth in unity, such worth as led the Lord to pray for its manifestation, the present state of Christendom must be regarded by one living outside of it as a riddle past all solving.

Hence I hail with intense pleasure, and watch with the deepest interest, the movement which seeks to weld Canadian Presbyterians, Methodists and Congregationalists into one

Church organization. It is a step in the right direction, it begins the work possibly on the line of the least resistance, for as far as the practical views and methods of the Presbyterians and Methodists are concerned, there is no principle that should necessarily keep them apart. Methodism has long ceased in this country to reflect in any important way the clear-cut, distinctive features of early Methodism ; it preaches no longer to any extent at street corners or in fields ; it has become, like the Presbyterian Church, a fixed and fully developed organization, and I fancy that there is very little difference between the preaching of the two pulpits, the old warfare between Arminianism and Calvinism being a thing of the past. That these two, under existing conditions, should come together is to-day as natural as that the fingers of my right hand should interlace themselves with those of my left.

I can say nothing about Congregationalists, for I never expected to see them take part in the union movement till towards or after the initial consummation. For the Congregationalists of the past have, like the Anglicans, ever contended for a principle, and what to them was a great principle, namely, the independence of each congregation to settle its own faith and to manage all its own affairs independent of and irresponsible to all authority save the Lord Jesus Christ. Hence in all I have thought or written about Union, I left the Congregationalists outside of my calculations, for I could see no legislative body, such as the Methodist Conference or the General Assembly of the Presbyterian Church, that could take the subject into legal consideration. To find, therefore, that the Congregationalists are in favour of union with the Methodists and Presbyterians is to me a most welcome surprise, and I suppose an evidence that the great principle of Independency for which they have contended is in this present age no longer regarded as a barrier to their churches becoming part and parcel of an organized body.

I regard then this movement as a great step, not only towards the unity for which our Lord prayed, and as such the sure forerunner of great spiritual blessings on this country, but also as a step towards a better balancing of religious forces in connection with Protestant public opinion on the governments

of Canada. The union of these three Churches would not place the new organization numerically on a level with the Roman Catholic Church, but it would create a Protestant church body numbering 1,787,621 adherents, a power that if on needed occasions spoke on the side of righteousness could not fail to make its influence powerfully felt. If at some future time a readjustment of the position of the united body should enable Anglicans, without surrender of principle, to increase this moral force as part of one great united church, then the larger united body would be in excess of the Roman Catholic Church by 238,641 adherents, and of still greater influence. I am not by any means an advocate for a political church or political parsons, but there are occasions when a strong non-Roman voice is needed, and that voice is not in existence to-day. There is a strong Roman voice—one voice, and I have always regarded it as a great loss to the whole country that it should possess a monopoly of solo singing. Protestantism as it stands is a weak chorus constantly out of tune and time.

I have been asked by some whether I considered it exactly courteous for these three churches to inaugurate a widespread system of union meetings dropping out the Anglican Church that set going the original idea in an orderly and legislative manner, and that has already met legally in united session with the Presbyterians and Methodists to take the subject into consideration? I think this a very small matter not worth talking about, for different people have different ideas as to what is courteous and what is not. Anything that makes for real unity on Biblical lines is worth tenfold all the bowings and soft words that could garnish what might still remain a real work left undone. Better the work done, even though some sensitive minds might think it roughly done.

Then Presbyterians and Methodists no doubt regard an initial movement amongst themselves as getting out of the way of the great difficulty that would certainly arise out of questions relating to church government, orders, etc., the Anglicans formed part of the movement in its consulting stage. As far as I have studied Methodist standards the general questions of "orders" to that Church would be a very insignificant one, if indeed a question at all. But, of course, "orders"

would naturally form a most important subject for consideration if the Anglicans were included, for they would be forced to open the question of the "Historic Episcopate, locally adapted in the methods of its administration to the varying needs of the nations and peoples called of God into the unity of the Church." And it may be that in the providence of God the time has not come for the consideration of this great subject, that union may work its forward way on other lines, solving other difficulties, until at last this difficulty will stand alone in solitary grandeur as the last final question to be solved by united Protestantism. To the men of future generations the question may not appear the difficult or the arrogant question that it appears to some to-day, for time is a great wonder worker, it is bringing Arminians and Calvinists together, and centralized churches and congregationalism. It may develop a sense of need and an investigating disposition, neither of which are characteristic of the present hour, and for that brighter day Anglicans can quietly wait. In the meantime they can thank God for any effort after unity, and continue to pray in the future as in the past that "God may give us grace to lay to heart the great dangers we are in by our unhappy divisions, taking away all hatred and prejudice, and whatsoever else may hinder us from Godly union and concord."

JAMES CARMICHAEL,  
*Coadjutor Bishop of Montreal*

## THE EMPIRE CABLES.

Memorandum furnished at the request of the Ottawa Board of  
Trade by Sir Sandford Fleming, K.C.M.G.

**T**HE term "Empire Cables" is understood to mean a system of Empire-girdling, state-owned Cable-telegraphs, established in an unbroken chain around the globe. "The Empire Cables" are designed to connect, telegraphically, in the most complete manner, the several groups of self-governing British communities in Europe, America, Australasia, Asia and Africa.

It is held that the Empire Cables should be state-owned for the following and other reasons, viz. :

1. In order that they may be wholly removed from the control of companies, whose chief object is to make profits by maintaining as high rates as possible on messages.
2. In order that the cost of telegraphing throughout the Empire may be reduced to a minimum.
3. In order that the British people, geographically separated by the oceans, may be brought within touch by a means of intercourse as free and as unrestricted as possible.
4. In order that the governments of all the self-governing British peoples within the Empire may be enabled to confer with each other at all times, with the greatest facility, on matters of mutual concern.
5. In order that no portion of these great lines of communication may come under foreign influence, or be used to the detriment of British interests.

The Empire Cables are, for greater security and effectiveness, designed to be laid in deep water, and to touch or traverse only British territory.

This new Imperial service, forming one unbroken chain around the globe, under one control, would provide a double means of telegraphing, that is to say, easterly as well as westerly, between any one British state and any other British state. By the removal of every restriction possible, it would stimulate commercial, social and political intercourse between the several parts, and tend in every way to strengthen the Empire.

This electric bond of Empire has for some time been projected. It is the outcome of the first Colonial Conference held in London in 1887, and the second, held in Ottawa in 1894. It may be described as consisting of four divisions, viz. :



1. From the United Kingdom to the Pacific, embracing a cable across the Atlantic and land lines through Canada.
2. A cable across the Pacific, from Canada to New Zealand and Australia, with land lines through Australia to the Indian Ocean.
3. A cable from Australia across the Indian Ocean to South Africa, with a branch from Cocos Island to India.
4. A cable from Cape Town to the United Kingdom via Ascension, the West Indies and Bermuda, with a branch to Canada.

The proposal to establish the first of these four divisions has for some time been before the Canadian public, and I feel warranted in saying that it is regarded with much favour. It cannot be doubted that in the event of the Canadian Government proceeding to nationalize the telegraph service between London and Vancouver it would be accepted with general satisfaction throughout the Dominion.

The second division is an accomplished fact, having been successfully carried out under a partnership arrangement between six British Governments, viz., the Home Government, the Canadian Government, the governments of New Zealand, New South Wales, Victoria and Queensland.

There remain divisions three and four to complete the whole series of Empire Cables. The principle of state ownership and state partnership having been adopted in respect to the Pacific, the extension of the principle to this the second half of the globe-girdling system would seem to follow naturally; but obstacles are met, the character of which call for explanations, and the means of overcoming them require to be considered.

With respect to the difficulty which has been raised and the complications which have been caused, they are directly traceable to the efforts of certain companies—the owners of cables between Asia and Australia. From the first the scheme of Empire Cables has been bitterly opposed. Ever since the Colonial Conference of 1887 the proposal to establish submarine telegraphs, to be owned and controlled by the state, has met with determined opposition. The companies referred to have enjoyed a rich monopoly, they have exacted very high charges

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on messages and have drawn from the public enormous profits. While the source of their lucrative business is in Australasia, the headquarters of the companies are in London, and the powerful influence they have been able to exercise has been employed at every step and in every conceivable way to stifle the proposal to establish state cables.

When at length it became known that the Home Government, together with Canada, three Australian States and New Zealand, had resolved to establish the Pacific Cable, the hostile companies combined and determined to adopt drastic means in order to defeat the new state policy. They saw plainly that a state-owned cable across the Pacific would lead to similar cables traversing the Indian and Atlantic Oceans. They accordingly decided to pre-occupy the ground by laying a private cable on the route which had previously been selected in the Indian and partly in the Atlantic Oceans, for the State-owned line. Moreover, they made tempting overtures to the governments of the Australian colonies, offering to reduce the burdensome telegraph charges hitherto exacted, provided these governments granted them certain concessions ; which concessions, it was afterwards discovered, would enable the combined companies to ruin the commercial outlook of the Pacific Cable, and possibly lead to the companies gaining control of that undertaking itself.

Unfortunately the then Government of New South Wales listened to the overtures and granted what the companies desired. Now the commonwealth inherits the act of New South Wales, and the objectionable terms secured by the companies cannot be rescinded in an ordinary way.

These, in brief, are the circumstances which led to the difficulty in Australia, which has perplexed the government partners in the Pacific Cable, and caused much friction. There is a collision of interests—private on the one hand, public and Imperial on the other. The companies, having command of great wealth and bent on their own aggrandisement at the expense of the general good, have adopted a bold and aggressive policy. In the event of their designs succeeding they would hold firmly in their grasp the Inter-Imperial Cables, which should all be under Imperial control.

Every patriotic man will see the need of those great lines

of communication, defined as Empire Cables, being absolutely removed from the control of companies or individuals whose highest aim is to make profit, and who, in this case, would accomplish that object by levying higher taxes than necessary on the intercourse of the people. Moreover, to leave any portion of the Empire Cables in the control of companies would be to invite greater difficulty. It must not be forgotten that the property of companies is transferable to purchasers willing to pay the stock market price ; and thus a company financed in London as a British Company may come to be controlled by foreign owners. Obviously the Cables of the Empire, unless absolutely state-owned and state-controlled, may, without attracting attention, cease to be British, and thereupon be employed in a manner detrimental to British interests.

At the last annual meeting of the British Empire League in Canada a minute was adopted, the fourth clause of which reads as follows :

*"The Empire Cables would actually be the great nerves of the Empire, and this League firmly holds the opinion that whatever else may remain the property of private companies or trusts, the Empire alone should own its own nervous system."*

Every sane person must give his adhesion to the principle laid down by the League, that the electric nerves of that complex organism which we designate the British Empire, should be entirely removed from danger ; that they should be allowed free play to produce and maintain a community of sympathy, and thus prove a potent factor in carrying out the destiny of the British people.

There can be no objection to private companies owning cables other than those within the circle of Empire Cables. In all cases when the former intersect the latter, they would assume the position of branches, and as such they would greatly gain by the connection. The true policy for the governments will be to reduce charges on telegraph messages transmitted by the Empire Cables to the very lowest rates, resting content with no higher revenue than may be required simply to make the service self-supporting. If this policy be adopted two results will assuredly follow : (1) The volume of telegraph business developed by the globe-encircling system will become enormous ;



(2) The charge for transmission will eventually be reduced to a point far lower than the dreams of the most sanguine. Both results will benefit the private companies owning the connecting lines, as the low rates on the Imperial trunk system will bring a continuous stream of telegraph traffic to the branch lines for dissemination.

The subject of the Empire Cables were considered by the Fifth Congress of the Chambers of Commerce of the Empire at the Montreal meeting last August. The action taken by that united body was most significant. This parliament of representative commercial men from all parts of the British world, pledged itself to the project as a new cohesive force—an electric bond of union—an indispensable factor in Imperial unity. The resolution, unanimously adopted, declares that the scheme of Empire Cables would put an end to the difficulty which has been caused by the allied cable companies in Australia, and remove all friction which has arisen between the six governments concerned as partners in the Pacific cable.

What course should then be followed? It has always been recognized that the owners of the private cables are entitled to reasonable consideration. Thirty years ago their enterprise in laying the pioneer cables to Australia was commendable. They received generous government assistance for many years. They exacted and obtained rich returns from the public. The venture has proved a profitable one, and as they have been gathering a yearly harvest it is scarcely surprising that they are unwilling to relinquish the monopoly they have long held. I have said they are entitled to due consideration, but the well-being of the British people generally must be considered. If it has become a matter of public expediency that the circle of Empire Cables should be completed, the companies cannot forever stand in the way. They have long been hostile. Shall they continue antagonistic to the public interests and refuse to recognize the public needs? The remedy is simple; it is found in the inherent right possessed by the state to subordinate private to public interests and exercise the powers of "Eminent domain." By this well known legal principle the private cables necessary to complete the system of Empire Cables, such as that recently laid from South Africa to Western Australia, may be expropri-

ated, just compensation being paid to the present owners. Owing to the attitude assumed by the companies this is perhaps the best course open, although it is not the only course: the alternative is to lay a new cable parallel to the existing private cable for the use of the State and for the public advantage.

In submitting these explanations to the Ottawa Board of Trade, by request of the President, I may be allowed to express my gratification that the subject of Empire Cables is now being considered by business men, and that at the Congress of the Chambers of Commerce of the Empire in Montreal, those present were a unit in respect to it. On this point I cannot do better than refer to the resolution adopted, (appended). We all know what business men can do. Their intuitive perception leads them to see clearly. Their business habits and training induce them to deal with a subject in a business-like way, and in consequence the action taken by organized bodies of commercial men has more weight and commands more influence than that of any other class. It will be remembered that it was the Chamber of Commerce of the United Kingdom which commenced and successfully completed the movement for nationalizing the telegraph system of the Mother Country. And quite recently the Ottawa Board learned from Mr. Thomas Barclay, of Paris, how the way was paved for the Treaty of Arbitration between France and Great Britain. That gentleman, in his address to the Board, explained that it was, in a very large measure, owing to the co-operation of the great mass of the *Chambres de Commerce de France* and the Chambers of Commerce of England, Ireland and Scotland, that the Treaty was made possible and the ground cleared for the heads of these two great European powers concluding an international agreement promotive of the peace of the world.

So likewise in the present movement, if associations of business men in any portion of the Empire follow the example of the Montreal Congress and give expression to their views, it will have a powerful influence on the respective governments. Co-operation of this character cannot fail to be effective; it will certainly tend to produce a community of sympathy in a matter which concerns the British people in all quarters of the globe.

## CURRENT EVENTS.

### COBDEN AND CANADA.

**T**HE recent celebration of the centenary of Richard Cobden's birth is suggestive of the odd fate which sometimes befalls an eminent man, in the popular estimation of succeeding generations.

Mr. Cobden undoubtedly had a very important share in that great spiritual awakening of his time, which broadened the British national vision, deepened the British interest in the rest of mankind, and elevated the tone of British social and political life. It was largely in consequence of the same movement, that the British colonies were at length allowed to peacefully assume that liberal degree of self-government under which they have achieved so much, while still cherishing, with a cordiality previously unknown, their historic connection with the Mother Country, whose illustrious names and great traditions are also theirs. Yet the present generation, with an imperfect knowledge of the circumstances under which their freedom was achieved, have been industriously plied with the reactionary view that Cobden and his associates were unfriendly to the colonies and the larger interests of their country. With singular perversity they are represented as little-Englanders, when, in reality, so far as they may be said to have erred in this connection, it was quite in the opposite direction. They conceived of a destiny for the Empire too lofty and generous for immediate realization, though there were, indeed, many indications, at the time, of the possibility of realizing, in some considerable measure, their high ideals. So far from being a little-Englishman, or even a little imperialist, Cobden hoped to see his country and her off-spring, including the United States, leading the whole world in the realization of freedom, peace and prosperity.

Mr. Cobden's reputed enmity to the colonies is a fiction of quite modern growth, and is born of the idea that to advocate freedom and self-reliance as primary virtues of all parts of the Empire, including the Mother Country, is a mark of disloyalty



to Britain and of animosity to the colonies. So far, however, was Mr. Cobden from being suspected of any enmity to the colonies in his own day, that he was offered the most important colonial appointment, that of Governor General of Canada, in 1859, under Lord Palmerston's government and with the Duke of Newcastle as Colonial Secretary. This was after he had twice declined a position in the British Cabinet, once under Lord Russell, and again under Lord Palmerston. But, considering the special character of the work which had fallen to his lot in public life, he thought that he could best serve his country as a private member of Parliament, and so declined these honors.

The possibility of so noted a man coming to Canada as Governor General created a wide-spread interest in all the Provinces of British North America. Papers of a liberal cast, such as the *Toronto Globe*, rejoiced at the prospect of having such a governor, the only fear being that the news might be too good to be true. The government organs, on the other hand, were divided in their attitude. Some, like the *Colonist*, highly approved, others, such as the *Pilot* of Montreal, took a neutral position, while still others, like the *Leader*, thought the appointment quite unsuitable. In no case, however, was there any suggestion that Mr. Cobden had been other than perfectly friendly to the colonies. The *Leader* considered the appointment unsuitable on the very reasonable ground that Mr. Cobden had no previous experience in the functions of executive government, and apparently did not care for that aspect of political life. The *Quebec Chronicle* considered that he would never do, because he was neither a soldier nor a nobleman. Every one admitted that he would be quite in sympathy with the principle of responsible government, and that his influence would be exerted towards the suppression of political corruption. With cynical optimism, however, the *Leader* maintained that the political corruption evident in the colonial politics of the time, was merely due to the fact that most of those who were devoting themselves to politics had to make their living out of it, a situation which not even Cobden could alter. But, when the country had produced a sufficient number of men of wealth and leisure who would devote themselves to politics, the political

morality of Canada would naturally improve without the aid of any Cobden. The *Globe*, with more enthusiasm, maintained that "The offer of the office to Mr. Cobden proves that the Duke of Newcastle is fully aware of the crisis in our affairs, and is willing that we should work our way out under a Governor who has always been an advocate of the largest liberty of self-government," and wound up with the declaration, "Let Mr. Cobden yield to the popular will as he desires that the Imperial Executive should yield; let him use the great influence of his position on behalf of law, morality and economy, and he will be the most popular Governor that Canada ever had." The fact that Mr. Cobden wisely declined a task for which his past experience had not at all fitted him, does not alter the fact that the proposal made to him and the reception of it in the North American colonies, quite disposes of the myth that Cobden hated the colonies. It is in harmony, however, with his often repeated declaration that he was opposed to the administration of the colonies from Downing Street, which was the imperialistic ideal of the time, but would grant them the most complete self-government, "and leave the individuals on both sides to cultivate the relations of commerce and friendly intercourse, as with other nations.

Mr. Cobden's views on colonial and other matters are commonly referred to as though they must either be accepted as quite applicable to all our modern conditions, or, if not, then as having been quite erroneous in his own day. Much is made also of the failure of the world to realize many of his most confident predictions. It is, indeed, perfectly true that Mr. Cobden was frequently astray in his estimates of the economic and political situations and forces of his own day. Often, too, he was quite reckless, almost as reckless, indeed, as Mr. Chamberlain himself, in promising to the gaping crowds who listened to his speeches, what no human being or government could guarantee; as, for instance, that changes in Britain's commercial and foreign policy would entirely alter, in accordance with her wishes, the commercial and foreign policies of all her great rivals. Nevertheless, the improvements within the British Empire which he anticipated from a reformed and liberalized national policy, were justified in quite a remarkable degree.

When imperialists maintain that many of Cobden's arguments and much of his policy are not applicable to the conditions of modern times, we heartily assent. But when they attempt to prove, as of late the logic of their principles has required, that the changes which are brought about by Cobden and his fellow workers, were altogether unwise and unnecessary, and that what is now required is a reversion to ante-Cobden policy and principles, we must altogether dissent. The special conditions under which we now live have never before existed in this world, and the principles which will explain them and the policy which will govern them, have never been previously formulated. Truly, the policy of our fathers is no longer adequate, but the policy of our grand-fathers is still less adequate.

#### KING EDWARD AS A STATESMAN.

The flexibility of the British Constitution is its most unique, as it is also one of its most valuable features. Technically, in the executive functions of the Empire everything is done in the name of the Crown, and in legislation everything requires its co-operation and assent. Yet, in the course of the national development, the power of the Crown has been steadily diminished, until it has seemed to many that so few of its original functions remain, that their total abolition would scarcely be felt in the government of the country. Looked at from the point of view of historic monarchy, it might appear that, under the conditions of modern democracy, a king must either remain a merely ornamental figurehead, or, in the effort to be a real factor in politics, come into inevitable conflict with popular government. However, the late Queen Victoria, and, in still more marked degree, King Edward, have amply demonstrated that, though most of the historic functions of the Crown have vanished with the special social and political conditions which gave occasion for them, yet there remain a number of readjusted and even quite new functions of the Crown, of very great importance and in perfect harmony with democratic institutions. The foundation fact in the change from the historic to the modern function of the Crown, is that the nation no longer serves the monarch, but the monarch is the chief minister of the state. As a minister of the state King Edward has proved that he has



a very important office to fill, while his responsibility, though perfectly real, is not to be measured by the standards applied to his Cabinet.

In conjunction with that model statesman, Lord Lansdowne, King Edward has just given the world a splendid illustration of how admirably the Crown may serve the State. The eminent wisdom and infinite tact shown in his visits and negotiations with the more important states of Europe, have been of the utmost importance in restoring Britain to that position of international respect and influence which was so sadly impaired by the Boer war. They have also vindicated alike the dignity and pacific disposition of the British nation, which had been distinctly compromised by the unfortunate stage swagger indulged in by a certain minister, not longer in office, but much more loyal than the king, whose attacks upon the leading Courts of Europe were more suggestive of the reckless jingoism of a Central American Republic, than of the self-respecting attitude required of the leading nation of the world.

In the conduct of foreign affairs democracy is usually at its worst, partly from a false conception of patriotism, and partly from a tendency to import into international relations the spirit and practise of party politics. King Edward, however, has shown himself capable of exalting the dignity and influence of his country, while displaying the most courteous and conciliatory spirit towards sister states, whether monarchies or republics. His crowning achievement is the very satisfactory settlement with France, which disposes of several difficult and delicate questions which were a standing menace directly to the peace of both countries and indirectly to that of the world. The King has had an opportunity for proving that his exceptional advantages for becoming thoroughly acquainted with the politics of the world, and of profiting by the experience and example of many world statesman, have not been wasted. It is not too much to say that he stands before the world to-day as the wisest, most trustworthy and most powerful influence for international peace and progress.

A. SHORTT.

## THE UNIVERSITY.

REPORTS, SESSION 1903-1904.

**E**ARLY in the session the installation of Principal Gordon took place with a great amount of eclat, and in connection therewith a large number of honorary degrees were given to distinguished personages.

These have already been listed in the Queen's College Journal and otherwheres.

At the Convocation in April the degree of LL.D. was conferred upon the Right Honourable the Earl of Dundonald, General commanding the Militia of Canada. On the same occasion the degree of D.D. was conferred upon the Rev. John Neil, of Westminster Church, Toronto, and the Rev. John Pringle, B.A., of the Yukon.

Through the death of the Rev. Dr. Thompson and of Mr. E. W. Rathbun, and the removal of the Rev. M. W. Maclean to Assiniboia, three vacancies were caused upon our Board of Trustees. These have been filled by the appointment of Rev. Dr. Warden, Rev. Dr. E. D. McLaren, and Mr. John Charlton. Mr. G. Y. Chown, Registrar of the University, has been appointed Secretary-Treasurer, in succession to the late Mr. J. B. McIver.

The attendance during the past session, as compared with that of the preceding session, has been as follows:

	1902-1903	1903-1904
Undergraduates in Arts (attending).....	818	816
General Students in Arts (attending).....	28	26
Post-Graduates in Arts (attending) .....	19	31
Undergraduates in Arts (extra-mural).....	132	144
Post Graduates in Arts (extra-mural) .....	5	9
Students in Theology.....	82	88
Students in Practical Science .....	182	148
Students in Medicine.....	203	216
	<hr/>	<hr/>
Registered in two Faculties.....	869	923
	<hr/>	<hr/>
	16	26
	<hr/>	<hr/>
	858	897
Increase in Number of Students.....	48	44

## DEGREES CONFERRED, APRIL, 1904.

In Arts (B.A., 72 ; M.A., 17 ; Ph.D., 1 ; ).....	90
In Practical Science (B.Sc.).....	17
In Medicine (M.D., C.M.).....	42
In Theology (Testamurs, 5 ; B.D., 1 ; ).....	6
In Law (LL.B.).....	1
	<hr/> 156

## THE FACULTY OF ARTS.

Last summer Professor McNaughton resigned the Greek chair, to accept a similar position in McGill University. His removal was much regretted, as his accurate scholarship and glowing enthusiasm had secured for him the warm regard alike of his colleagues and students. The Trustees appointed in his stead, Mr. T. Callander, M.A., a scholar of excellent standing at Oxford, who has become identified with the work of exploration in Asia Minor, and can thus bring an additional interest to the duties of his department.

The work of the various classes has been steadily maintained, there being little interruption through sickness, except in the case of Professor Jordan, who was compelled to absent himself throughout almost the entire session. With the exception of a few cases of fever, two of which were fatal, the health of the students has been particularly good.

During the session the class on the English Bible received more attention than formerly. It consists of a two years' course, optional to all students, conducted by the Principal and Professor McComb, the former taking the Old Testament, and the latter the New Testament, each giving one hour a week. In the Old Testament the work of the class covered the Hexateuch and the History down to the captivity of the Northern Kingdom. In the New Testament the work was confined to the Gospels. It is expected that, during next session, the remainder of the Scriptures will be gone over in this class. The attendance was large, including not only a good proportion of the Theological students, but also a considerable number of Arts students, as well as of the general public, who were permitted to be present. It is hoped that this class may prove to be of much service.

Arrangements have been made for the fuller study of Elocution. This will not be confined, as hitherto, to the Theological students, but will be connected with the department of English Literature. It will be conducted by the Rev. James Carruthers, who is already very favourably known in the University.

STATEMENT OF REVENUE AND EXPENDITURE OF QUEEN'S COLLEGE, KINGSTON,  
FOR YEAR ENDING APRIL 2ND, 1904.*Revenue.*

Rent of Carruthers Hall and Mechanical Laboratory.....	\$ 1,500 00
Rent of Lands.....	185 00
Chancellor's Lectureship .....	250 00
John Roberts Allan—Chair of Botany .....	150 00
Fees .....	21,049 89
Interest on Mortgages and other Securities.....	24,710 41

# THE UNIVERSITY.

81

## General Assembly's College Fund :

Church Agents.....	\$3,188 95	
Congregations contributing direct.....	522 60	
		3,711 55
Receipts of Scholarships.....		2,088 00
Interest on Jubilee Fund Subscriptions .....		1,499 58
Hon. Justice Maclellan, Installation Expenses.....		100 00
Sale of Manitoba Lands.....		2,331 45
Rev. A. H. Scott, Perth Subscription.....		155 16
Balance, accumulated deficiency.....	\$8,688 58	
Deficit for year....	2,269 82	
		10,907 90
		<u>\$68,583 89</u>

## *Expenditure.*

Deficiency of former years.....	\$ 8,688 58
Salaries, Professors and Lecturers in Theology.....	10,583 34
Salaries, Professors and Tutors in Arts .....	28,950 01
Salaries, Other Officers.....	2,833 00
Chancellor's Lectureship .....	250 00
Church Agents—Commission on Collection for General Assembly College Fund.....	60 00
Scholarship Account.....	2,088 00
Insurance .....	159 50
Repairs.....	3,205 44
Travelling Expenses.....	268 67
Printing and Stationery .....	2,053 19
Advertising.....	114 78
Furniture.....	102 40
Taxes on Lands.....	46 18
Apparatus .....	23 47
Library.....	2,096 00
Athletics .....	951 00
Biological Laboratory .....	616 00
Mining School.....	927 58
Grounds.....	273 60
Fuel and Light.....	2,784 76
Legal Expenses.....	446 56
Installation Expenses.....	612 09
Principal's Robes.....	223 41
Contingencies .....	331 38
	<u>\$68,583 89</u>

G. Y. CHOWN, *Treasurer.*

Examined and found correct,

(Sgd.) D. MURRAY, *Auditor.*

Kingston, May 27th, 1904.



*QUEENS QUARTERLY.***GYMNASIUM FUND.**

April 2, 1908—Amount paid to date.....\$2,665 07  
Interest on Amount..... 120 00

Total.....\$2,785 07

**WILLIAMSON MEMORIAL SCHOLARSHIP FUND.**

April 2, 1908—Amount paid to date.....\$3,094 26  
Sale of Land..... 375 00

\$3,469 26

Subscriptions bearing interest @ 6 p.c..... 200 00

**"'01" FELLOWSHIP FUND.**

Amounts paid to date.....\$1,000 00

**DEAN FOWLER SCHOLARSHIP FUND.**

Amounts paid to date.....\$14,224 12

**CHAIR OF CHURCH HISTORY.**

Amount previously acknowledged.....\$23,298 25

Sundry subscriptions raised to date..... 152 27

Total.....\$23,450 52

**MCDOWELL MEMORIAL SCHOLARSHIP FUND.**

Amounts paid to date.....\$530 00

**DORAN BEQUEST.**

Amount previously acknowledged.....\$21,384 31

From Executor during year..... 1,000 00

\$22,384 31

**ENDOWMENT JOHN STEWART BURSARY.**

From Jas. Dingwall.....\$5,000 00

**THE THEOLOGICAL FACULTY.**

During the past session there were 34 students in attendance on the various classes in Theology, and 4 post graduate students engaged in special studies, in all 38.

The work of the session was impaired by the illness of Professor Jordan, necessitating his withdrawal from the duties of his chair. The work of his department was divided, that of the Hebrew classes being taken by Mr. Petrie and Mr. Watts, that of O. T. Exegesis by Professor McComb, and of O. T. History by Rev. Dr. Macgillivray. The work formerly carried on by the late Dr. Thompson in Homiletics and Pastoral Theology has, during the past session, been continued with much acceptance by the Rev. Dr. Milligan, of Toronto.

The Alumni Conference, which has now become an annual feature in the life of the University, was held for the twelfth time in February. The Conference forms for a number of our Alumni a sort of post graduate course, while the students in attendance at the meetings, especially those in Theology, find much benefit from the addresses and discussions. As mid-winter is an inconvenient time for many graduates to attend, it has been decided to hold the next annual Conference in the first week of November.



Since our last report, we have received a legacy from the late Mr. John Stewart, of Roxborough, of five thousand dollars, the interest of which, according to the terms of the bequest, is to be applied "to assist needy and deserving theological students, studying in the Theological department of said College for the ministry of the Presbyterian Church in Canada."

REPORT OF THE DEAN OF THE MEDICAL FACULTY.

The Faculty of Medicine has had a very successful year, both attendance and revenue having increased. The death of the late Dean Fife Fowler, who for many years was identified with medical education in Kingston, led to the appointment of Dr. J. O. Connell to this responsible office. Dr. John Herald retired from the office of Secretary on Dec. 1st, 1903, and Dr. W. T. Connell was appointed to succeed him.

Several changes in and additions to the teaching staff have been made. Dr. Wood has been promoted to be Professor of Pediatrics and Associate Professor of Obstetrics and Gynæcology; Dr. Mylks to be Assistant Professor of Anatomy; and Dr. Williamson to be Professor of Medical Jurisprudence and Toxicology. Dr. W. C. Barber and Dr. W. C. Herriman, of the staff of Rockwood Hospital for the Insane, have been added to the staff as Clinical Assistants, to give clinics in medicine. This will increase the clinical facilities very materially. Arrangements are in progress for further extension of the clinical teaching. Dr. Frederic Etherington has been selected for the new position of Lecturer in Animal Morphology and Tutor in Human Anatomy. It is expected that under his guidance the department of Anatomy will become more efficient than ever and the Anatomical museum will be developed. Dr. Etherington is now in Edinburgh and will spend the summer in preparation for his work. With these additions the teaching staff now numbers twenty-five.

The requirements for Matriculation Examination have been increased; so that now matriculation for Medicine is the same as for Arts, except that the optional subjects are not required. The matriculation examination must be completed within one year of the date of entering upon medical studies, so that hereafter all second year students must be fully matriculated.

To the medical curriculum Physics has been added as a first year study, the course to be entirely experimental and practical and suited to the needs of medical students.

For teaching Pharmacology a laboratory is being fitted up and its equipment will be completed as soon as possible.

The work of the year was marked by enthusiasm on the part of both the students and the staff.

The attendance for the year was 216, an increase of 15 for the year. Thirty-seven Arts graduates are in attendance. There are also quite a number of students who are taking the combined Arts and Medical Course, which can be had in six years.

Forty-two candidates received the degree of M.D. and O.M.

The total revenue for the year was \$22,364.81; of this amount \$1,974 was paid to the University; and \$1,498 to the School of Mines. The salary account amounted to \$9,405.73. Out of the expense account, which amounted to \$5,231.95, nearly \$2,000 was spent on equipment.

So far in its history the Faculty of Medicine has been entirely self-supporting, that is, it has never had any source of revenue other than the fees of the students. In spite of this an addition to the Medical building, costing over \$10,000, was finished three years ago, and every year has seen a large sum spent on improvements and equipment. It is felt, however, that endowment must be secured for proper extension of those subjects requiring professors who devote all their time to teaching, and laboratories whose equipment and maintenance must always be out of proportion to the fees collected from those in attendance. The experience of the Faculty has shown that laboratory teaching cannot be successfully carried on by men in the active practice of medicine. Another reason why endowment may fairly be expected for the primary subjects of medicine is that these are essentially subjects of the Arts Course, for they are accepted as part of the work for the B.A. degree not merely in Canadian but in British Universities. Then there is the department which has to do with public health. For this endowment is needed. Sanitary Science and Bacteriology also have long ceased to be purely medical subjects, and are now properly recognized to be subjects for the B.Sc. course. All three subjects are taught by Dr. W. T. Connell, who has during the twelve years of his connection with the University earned a reputation for thorough and reliable work, and has done some research of great value to the country. The Ontario Government has recognized the value of his services by appointing him a special health officer for Eastern Ontario to make examinations in connection with contagious diseases.

This department needs more support than the Faculty feels able to give it out of its present revenue.

It must be remembered, also, that the fees paid by medical students are already very high and ought not to be increased. They are about four times higher than the fees paid by Arts students, and twice as high as those paid by the students of the Science Faculty. At the same time it ought to be noted that the fees paid by medical students in Queen's are much less than those of Toronto University and of McGill.

The Faculty has confidence that the friends of Queen's will no longer overlook the claims of the medical side of the institution to participate in future endowment, especially as regards the teaching of such purely academic and scientific subjects as anatomy, physiology, bacteriology, sanitary science and public health.

J. C. CONNELL, M.A., M.D.,  
*Dean of Faculty.*

#### REPORT ON ANIMAL BIOLOGY.

The total registered attendance during the session was 167, of whom 10 were extra-murals. The attendance is distributed as follows:

Pass class (of whom 8 were extra-murals) .....	52
First Year in Medicine .....	47
Second Year in Medicine .....	48
Preliminary Honours (of whom 1 was extra-mural) .....	16
Final Honours (of whom 1 was extra-mural) .....	4

There are two or three matters connected with my work which merit some consideration on the part of the Trustees. The first is the large attendance. Ten years ago the total attendance was only 79. The second matter is the largely increased amount of practical work now done in both Physiology and Histology—work that is rendered imperative in the interests of honour students in arts, as well as of medical students. A third matter is the necessity for providing a more thorough course of instruction for those of our students who intend to teach biology in the higher public schools of the province.

These considerations all point to the desirability of appointing an additional instructor in animal biology. If lecturing alone were required, it would be as easy to lecture to 167 students as to 79. But the real increase in work, in all science teaching, consists in carrying on laboratory instruction. In physiology and histology this has been fairly well done in the past, but in the other main division of biology, viz., animal morphology (including comparative anatomy), the work has been narrow and defective. My honour students have every year been warned about the inadequacy of the treatment of this side of their course, and the time seems to have come when something must be done to relieve the disabilities under which the student of animal morphology labours at Queen's.

The proposal of the Dean of the Medical Faculty to appoint an instructor in Human and Comparative Anatomy seems to open up a way for a solution of the difficulty. Such an instructor would, in time, come to occupy the position of Professor of Animal Morphology. He might at the outset be appointed lecturer in this subject and do the work which Dr. Williamson has been doing for me during the past three or four years. Such an arrangement as Dr. Connell suggests evidently implies that in time all the teaching of anatomy, in both Arts and Medicine, would be under the direct control and supervision of one man. Animal physiology and histology would then come to occupy all my time.

The unification of all anatomical teaching under one professor would improve the teaching and tend to break down the artificial distinction between anatomy as a medical subject and anatomy as an arts subject. When the combined six years' course in arts and medicine for the B.A., M.D., degrees was installed two years ago, human anatomy was made in Queen's (as it has long been in Cambridge, England,) an arts subject. One of the objections to adopting the course was that human anatomy and *materia medica* were too restricted in their training to be admitted as subjects of scientific culture. It was urged at the time that if human anatomy could be enlarged to comparative anatomy, the objection to its study in an arts course would be entirely removed. The movement, therefore, towards having one instructor for human and comparative anatomy is one that will, when consummated, give the subject its highest educational value.

The new course for B.A., M.D., is attracting medical students. It was at first feared that the course would draw away students from the regular arts courses. So far as I can judge, it is not having this effect. Rather is it inducing medical students to take arts classes before entering upon their regular professional studies. The proof of this is furnished by the fact that during the present session I know of two medical students

(and there may be others) who have dropped their purely medical studies and entered upon the combined B.A., M.D., course.

One of the effects of the proposed new regulations of the Education Department will be to send increasing numbers of teachers to the University. They will come in order to qualify themselves, more particularly, to teach the additional science now included under the name of Nature Study. Nature study implies the study of the outlines of every one of the natural sciences. Hitherto the only sciences studied in our High Schools and in the Continuation classes of our Public Schools have been physics and chemistry. Hereafter a teacher will need to know, in addition, elementary Botany, Zoology, Geology, Mineralogy and Meteorology.

The amount of secondary education that is being done in the public schools of the province is increasing all the time. In 1903 there were 4,933 pupils in continuation classes, with 554 teachers. Of these 26 were graduates in arts, 108 held first class certificates, and the remainder held second class. These continuation classes are just small High Schools, and it should be the aim of the University to attract not only the pupils from these, but the teachers also, and induce the latter if possible to complete a course in arts. In no other way can Ontario approximate to the ideal of the parish schools of Scotland than by placing an arts graduate in every one of the 540 public schools of the province in which High School work is now being done.

If we are to encourage teachers to come to Queen's to improve their attainments as teachers, it is quite clear that a well-planned course of study should be organized specially to meet their needs. The science specialists' course—in fact, no specialists' course would be suitable for them. There should be more literature and less of advanced science than is now to be found in any of our science courses. The instruction also should be from a different point of view from that given to the advanced student. Elementary science should be taught to the student-teacher while in the University, as nearly as possible in the way in which he would be expected to teach it to his pupils when he returned to his school.

Now if this is to be done in science, it is quite clear that the University museum must be greatly developed. While some aspects of animal biology can be taught well without much museum work, it is simply impossible to treat other aspects of the subject without a museum. Our museum is lamentably lacking in specimens, and while I have been anxious to add to its equipment, the necessity for expanding the physiological and histological aspects of my work have hitherto absorbed all my time and energy. The development of an anatomical and natural history museum would naturally come to be part of the work of a professor of animal morphology. Such a development would be equally in the interests of the medical student, the honour student in arts, and of those public school teachers who, I hope, will be attracted in increasing numbers to come to Queen's. The preparation of dissections, and the collection of other museum specimens, in short, the organization of a morphological museum might well engross all the energy of a man for ten years to come.

All of which is respectfully submitted.

A. P. KNIGHT,

*The John Roberts Professor of Animal Biology.*

## BOTANY.

Total number registered during the session :

Pass Class.....	28
Preliminary Honours.....	4
Final Honours.....	2
	—
	84

The death of my able assistant, Mr. Ernest J. Wells, during the Christmas holidays, was a very sad event and a great loss, not only to myself, but to the College also. The appointment of Mr. Hogan as his successor brought me much needed assistance.

A few years ago (1899) I attended the summer session at the University of Chicago to acquire a practical knowledge of the experimental work in the teaching of Vegetable Physiology and Ecology. I have been looking forward ever since to the practical introduction of these subjects, and have delivered a weekly lecture on them for the greater part of each session. The two Honour classes also study them from the Text-books ; but, owing to the want of living plants, cannot practically test their adaptations to the various ecological factors, such as soil, heat, light, moisture, &c. After moving into the new building I secured the necessary tables and apparatus for engaging in the work, expecting the immediate completion of the conservatory. To my great disappointment and the detriment of my class, it is not yet completed. It is exceedingly desirable that it should be finished and furnished with the necessary material for study next session. These subjects receive a great deal of attention in the Universities of the United States, and in all Agricultural Colleges and Schools of Forestry. Upon them depend all scientific farming and forestry.

## HERBARIUM.

At the opening of the session the Herbarium was moved from the Museum to the Engineering building. All my available time during the winter has been devoted to the work of arranging and preparing it for the purposes of study, but much still remains to be done. Several hundreds of specimens have been added to it since last session, thus greatly increasing its value.

Last summer I left for the west on May 25th, and returned in August with a collection of more than fifteen hundred specimens of plants secured in Vancouver, Victoria, New Westminster, Banff and Regina. These have not yet been mounted, but I hope to have them ready for use before the opening of next session.

In Vancouver and Victoria I procured a number of publications dealing with the forestry and lumber business of the country. To the Hon. J. R. Anderson, Deputy Minister of Agriculture, I am indebted for much kindness and a valuable collection of Vancouver Island plants.

JAMES FOWLER, *Prof. of Botany.*

## REPORT OF DEAN OF FACULTY OF PRACTICAL SCIENCE.

In regard to the Mechanical Department I beg to point out the following matters :

1. The mechanical laboratory is now in a position, as far as its wood-working and its mechanical departments are concerned, to give to students

a sound and efficient training in pattern-making and in the practical use of metal working machinery.

2. We are in a position to make nearly all the tools and appliances needful, except in the case of special pieces such as gear mills and certain kinds of drills, taps and dies.

But we need badly a planer of about 6 feet bed in order to complete our equipment. With this we might do much work which has now to be sent to the foundry.

3. During the past year a great amount of work has been done for nearly all the different departments, but especially for the engineering one, and at all times in the future, although this is not the primary purpose of the shops, they can be useful along this line. In fact an account for some thirty-five or forty dollars has been paid to the foundry for work which might have been done in the shops.

4. It was never my intention to keep the shops open during the whole year; if it had been I would not have dreamt of suggesting that Mr. Connell, the machinist, and a most competent one, should be engaged at \$300 per year, for that is no more than the wages of a laborer.

5. The blacksmith's shop in its present form was only a tentative affair, and with the enlarged classes it is altogether insufficient. We need a blacksmith's shop about 30 feet long with three forges and adaptations for filing and chipping iron. What such a shop will cost I do not know, but it could probably be satisfactorily built for \$400 or \$500.

With these additions, and probably a larger lathe than we now have, at some time in the future, our facilities would be quite complete. As for smaller lathes and other tools we can build them in the shops.

6. During the past year I have given  $5\frac{1}{2}$  hours per week, upwards of half my time, to teaching science subjects. I cannot do it hereafter, as I must give more time to the honour classes in Arts, for I am really a professor in the University rather than in the Mining School, and our honour graduates in Arts, by getting into the High Schools and Collegiate Institutes of the Province, constitute one of the greatest elements of strength of the University, inasmuch as upon them we depend for our increase in the number of students.

All of which is respectfully submitted.

N. F. DUPUIS,  
*Dean of Practical Science Faculty.*

#### LIBRARIAN'S REPORT.

The additions to the Library during the past year have been as follows :

Purchased (including bound periodical and pamphlets, 126).	1,193
Donated .....	756

—  
1,949

Some valuable works were obtained last year by the exchange of duplicates, especially a set of The Michigan Pioneer and Historical Collections, from the Michigan State Library.

The Consulting Rooms in the two Arts Buildings have proved of great value, and the work there has been very satisfactory, the number of stu-

dents availing themselves of the opportunities for quiet study having much increased. Every effort is being made to give students greater facilities for consulting works contained in the main library, and to provide for the requirements of extra-mural students, but the latter branch of library work would require a larger supply of duplicate books before it could be really efficient.

The valuable collection of portraits given by Sir Gilbert Parker has been placed in Consulting Library No. 1, where they are seen to great advantage and are much more accessible than before. Consulting Library No. 2 has also been further enriched by the addition of Mr. G. A. Reid's beautiful painting over the fireplace.

The Librarian this year attended the Ontario Library Association meeting held in Toronto in April. At the annual meeting of the Curators of Queen's University Library the Curators expressed their opinion that, where possible, it was desirable in the interests of the University, that the Librarian should attend similar Conventions, and recommend the matter to the consideration of the Senate.

The following summary of the financial statement from the Auditor's Report is submitted :

Balance to credit of Library, May 1st, 1903.....	\$ 166 99
Received from the Treasurer.....	2,096 00
Private accounts and other sources.....	219 54
	<hr/>
Total.....	\$3,482 44
Expenditure .....	2,087 97
	<hr/>
Balance.....	\$ 444 47

LOIS SAUNDERS, *Librarian*.

May 1st, 1904.

#### CONSTITUTIONAL CHANGES.

A year ago the University authorities were considering the Draft of a Bill which it was proposed to submit to Parliament with a view to some serious changes in the constitution of the University. Two of the main provisions of the Bill were that the University should be entirely severed from the Presbyterian Church, and that the graduates should have considerably increased representation upon the governing Board. The Bill required the assent of the General Assembly of the Presbyterian Church, and it was thought that this would be readily granted. Not so, however. The Assembly declined to join in the petition to Parliament for the passage of the Bill, and appointed a commission to confer with the Trustees regarding the propriety of maintaining the connection with the Church. Upon this action of the Assembly the Trustees withdrew the Bill and stayed proceedings. They afterwards conferred with the commission in September, and again in February when the commission had received replies from the Presbyteries within the Synods of Ontario and Quebec in regard to the resolutions of the September Conference that had been remitted to them for consideration. The results of these Conferences have already been made public and need not here be recorded. The resolutions passed by the commission were submitted to the University Council as

well as to the Board of Trustees for consideration. The Council passed the following resolution :

"That the University Council desires to express its hearty sympathy with the spirit which prompted the resolution arrived at by the Assembly of the Presbyterian Church last June to maintain the connection of the University with the Church.

"That the Council will be glad to co-operate in the line of that resolution with the view of ascertaining if any definite arrangements can be made in the interests alike of the Church and the University.

"That in the meantime the Council desires respectfully to bring the following points before the notice of the Assembly :

"First : The resolution of the Assembly is virtually a reversal of its previous attitude and of all the steps which have already been taken by the University authorities to nationalize the University.

"Second : As the continuance of the present relation between the Church and the University may impose considerable limitations on the future development of Queen's University, the Council desires to draw the attention of the Church to the gravity of the situation created for the University by the action of the Assembly at Vancouver."

The Board of Trustees at their meeting on April 27th, agreed to transmit with approval to the General Assembly the preceding resolution of the University Council, and also passed the following resolution :

"The Trustees having already stayed proceedings in connection with the proposed constitutional changes, in view of the action which has been taken by the General Assembly and by the Commission appointed by the Moderator, resolved to re-affirm the resolution of September, 1903, and to continue in the meantime the existing connection between the University and the Church pending the action of the Church regarding the support of the University."

*Resolutions regarding Queen's University submitted by a Special Committee and Unanimously and Cordially adopted by the Assembly.*

8th June, 1904.

Your Committee has considered the report of the Trustees of Queen's University. The minutes of the Commission appointed to confer with the Trustees concerning the relation of the University to the Church and the returns of the Presbyteries of the three Central Synods to which the resolutions of the Commission were referred finds that these Presbyteries have expressed with practical unanimity a desire for the maintenance of the connection between the Church and the University.

It therefore recommends to the Assembly,

1. That the connection between the Church and Queen's University be maintained.

2. That in view of the helpful influence exercised by the graduates of the University the Assembly would approve of arrangements being made whereby the graduates may be given through the Council a larger representation on the Board of Trustees.

3. That the Assembly, recognizing the extent and character of the work done by the University, approves of the deliverance of the Commission that the University requires an additional annual revenue of \$20,000, exclusive of the contributions at present made in favour of the Theological



department, and heartily recommends it to the liberality of the members of the Church and to the cordial sympathy and support of the Presbyteries and congregations of the Central Synods.

4. That the Assembly recommends the Trustees to initiate at an early date a movement to procure this additional revenue.

5. That the Assembly appoints a Committee to co-operate with the Trustees for this purpose.

6. That this Committee consist of a large and well selected Committee representing the Presbyteries of the three Central Synods.

Of necessity the initiative in such a movement is entrusted to the Governing Board of the University, but the Assembly appointed a large and representative Committee to co-operate with the Trustees, consisting of the following members:

Rev. A. T. Love, A. H. Cook, Esq., Quebec; Rev. Dr. Kellock, Richmond, Q.; Rev. Dr. Barclay, James Croil, Esq., D. Morrice, Esq., James Bodger, Esq., Montreal; Rev. Dr. Morison, Ormstown; Rev. Arch. F. Graham, Lancaster; Rev. Arpad Givan, Williamstown; James Dingwall, Esq., Cornwall; Rev. Dr. Armstrong, Rev. J. W. H. Milne, Judge MacTavish, Geo. Hay, Esq., Ottawa; Rev. John Hay, Alexander Barnet, Esq., Renfrew; Rev. D. Currie, Perth; Hon. Senator Frost, Smith's Falls; Rev. D. Strachan, John M. Gill, Esq., Brockville; Rev. C. H. Daly, Lynn; Rev. J. D. Boyd, Rev. A. Laird, Kingston; Rev. A. H. Drum, John Bell, Esq., Belleville; Rev. Dr. E. F. Torrance, Rev. J. G. Potter, R. Harrison, Esq., Peterboro; Rev. D. W. Best, Beaverton; Rev. James Wallace, Lindsay; Rev. James Hodges, Robert McLaughlin, Esq., Oshawa; J. B. Dow, Esq., Whitby; Alexander Neilson, Esq., Scarborough; Rev. Dr. Armstrong Black, Rev. Dr. W. G. Wallace, Rev. Dr. John Neil, Rev. Alfred Gandier, Dr. James Bain, Rev. J. A. Macdonald, Lieut-Col. Davidson, Joseph Henderson, Esq., James Kay, Esq., James Kent, Esq., Toronto; Rev. Robert Fowlie, Erin; Rev. J. H. Edmison, Cheltenham; Rev. Dr. R. N. Grant, Dr. Beaton, Orillia; Rev. Neil Campbell, Oro; Rev. George Grant, Barrie; Rev. S. Childerhose, Parry Sound; Rev. W. A. Duncan, Sault Ste Marie; Rev. D. McEachern, Sault Ste Marie West; Rev. Dr. Somerville, Judge Morrison, Owen Sound; Rev. J. A. Black, Massie; Rev. W. Farquharson, Durham; Rev. T. D. McCulloch, Harriston; Rev. R. W. Ross, Lieut.-Col. Macrae, Guelph; Rev. R. E. Knowles, Galt; Rev. Dr. Fletcher, Rev. Dr. Lyle, Rev. N. Macpherson, Dr. Malloch, George Rutherford, Esq., Alex. Turner, Esq., Hamilton; Rev. Dr. G. H. Smith, W. A. Charlton, M.P.P., St. Catharines; Rev. D. McMullen, Woodstock; Rev. G. C. Patterson, Embro; Rev. W. A. J. Martin, Brantford; James Penman, Esq., Paris; Rev. J. G. Stuart, Rev. W. J. Clark, London; Rev. J. C. Tolmie, Windsor; Rev. Dr. Battisby, Chatham; Rev. A. A. Graham, Petrolia; Rev. E. C. Currie, Hon. Senator Vidal, Sarnia; Rev. W. L. Leitch, Stratford; Rev. Alex. Macaulay, Mitchell; Rev. Dr. McLean, Blyth; Rev. John Ross, Brussels; Rev. Dr. J. L. Murray, Kincardine; Rev. Thomas Neilson, Walkerton.

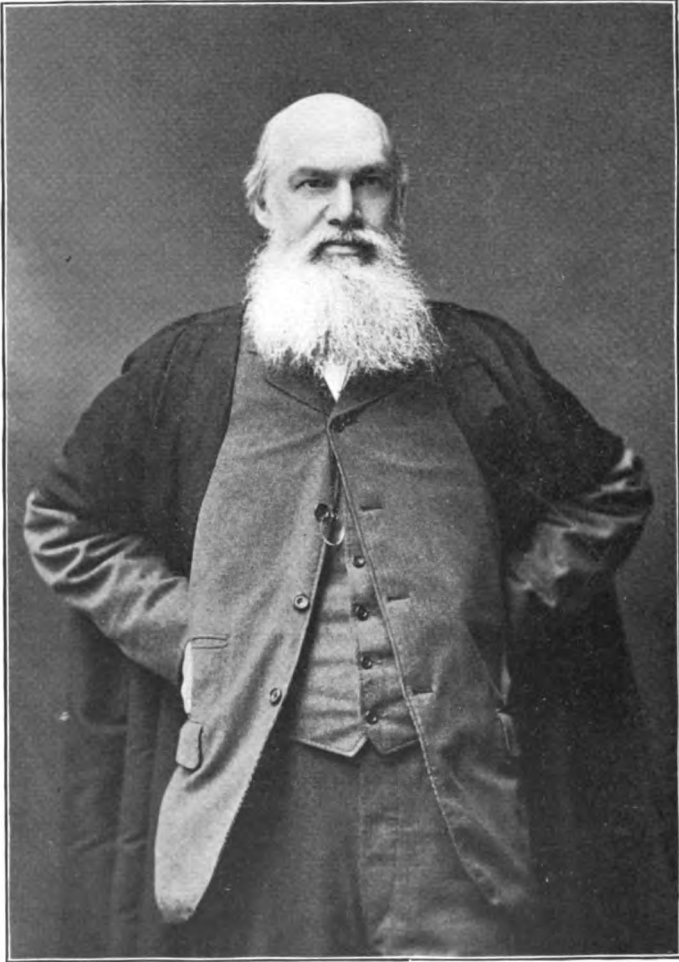
The Trustees are thus entitled to rely on the active sympathy and co-operation of the Church in their efforts to secure an adequate revenue for the University.

DANIEL M. GORDON.

June, 1904.







**EDWARD CAIRD, LL.D., D.C.L.,**  
Master of Balliol College, Oxford.

# Queen's Quarterly.

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OCTOBER, 1904

No. 2.

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## IDEALISM AND THE THEORY OF KNOWLEDGE.\*

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SINCE the publication of Kant's great work, almost all discussion of the theory of knowledge has turned upon the relation of the object to the subject or of the content of our experience to the formal character of our thinking. In some sense, therefore, we may call all modern theories of knowledge idealistic, and most of them have been so called by their authors. But this does not carry us very far: for the word idealism has been used with so many shades of meaning that it is loaded with misleading associations. It has even, it may be feared, led to the confusion with each other of philosophies which have almost nothing in common. It becomes, therefore, a matter of some importance to disentangle the various senses in which the term has been employed, and the attempt to do so may perhaps furnish the best starting point for a consideration of the real issues involved in the question.

Now with Plato, who first brought the word into philosophical use, an idea meant something that was primarily and emphatically objective. The idea of a thing was, as he constantly puts it, the thing itself. 'The good itself,' 'the beautiful itself,' 'the one itself,' are the permanent objective realities to which all our conceptions of goodness, beauty and unity point, as distinguished from their phenomenal appearance; and the thought that they are present to our minds, or accessible to our consciousness, though never absent, is secondary and derivative. But with Locke an idea is primarily a state of mind, and Berkeley's doctrine that the *esse* of things is their *percipi* has so deeply affected our philosophical language that in com-

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\* An address delivered before the British Academy.

mon usage the name idealism is most often applied to the theory which regards the modifications of our consciousness as the objects, or at least as the primary and immediate objects, of knowledge, and which treats the existence of the external world only as an inference. This usage would not in itself be a matter for regret, but, as I have already suggested, it has not seldom led to a misconception of the meaning of philosophical writers who employ the word with something of its old Platonic significance.

Such a misconception is partly favoured by the way in which the so-called idealism of Germany has developed. Kant emphasized the relativity of objects to the unity of the self, but he still maintained the reservation that the objects so related are not in an ultimate sense real, apart from the subjectivity to which they are revealed. While, therefore, he contended that the world of experience cannot be regarded as independent of consciousness in general, and, indeed, of the consciousness of man, he still held to the distinction of the objects of experience from things in themselves. He thus, after all, seemed to seclude man in a world of his own consciousness, and to sever him entirely from reality. Hence when Kant was attacked as a Berkeleian, it gave him no little trouble to separate his own doctrine from that of Berkeley, and his attempts to work out this distinction are perhaps the obscurest parts of the *Critique of Pure Reason*. In fact, he was unable to achieve this result except by an argument which—if carried to all its consequences—would have been fatal to the distinction of phenomena from things in themselves, and would thus have transformed the most fundamental conceptions of the *Critique*. For the point of that argument is that we can be conscious of the subject only in distinction from, and in relation to, the object, and that, therefore, our consciousness of the external world is as *immediate* as our consciousness of the self, and our consciousness of the self as *mediate* as our consciousness of the external world. But if this argument be valid, the subjective point of view of Berkeley can once for all be set aside. To suppose that we are first conscious of our ideas, as our ideas, and then that secondly we proceed to infer from them the existence of objects, is to invert the order of our intellectual life, and to tear asunder

its constituent elements. It is to invert its order : for, though the unity of the self may be implied in all consciousness of objects, yet it is to the object in the first instance that our attention is directed, and we observe the outward world and construe its meaning long before we turn the eye of reflexion upon the inner life. And it is to tear the elements of it asunder: for the outer and the inner life are at every point in close correlation, and there is no experience of ours, theoretical or practical, in which we have not to do with both. The growth of our inner life is just the development of our knowledge of the outer world, and of our interests in it, and the attempt to retire into ourselves and in a literal sense to make our mind a 'kingdom' to itself is suicidal. It would be like the attempt of the abstract pleasure-seeker to get pleasure apart from all interest in anything but pleasure itself.

Berkeleianism, if we neglect the somewhat artificial expedients by means of which Berkeley tried to find his way back to an objective world or at least to an objective deity, may easily be pushed into the abyss of Solipsism. And, perhaps, there may still be some one who, taking the doctrine in this sense, would repeat the paradoxical assertion of Hume that Berkeley's argument 'cannot be refuted,' though it 'carries no conviction'. In truth, it is so far from being incapable of refutation, that in its very statement it refutes itself, by setting up an '*ipse*' or self with no not-self as its correlate, and indeed by assuming the possibility of the existence of a finite individual, who is conscious of himself in his individuality, and yet is not, *ipso facto*, aware of his relation to any greater whole in which he is a part. In like manner, in the similar but more developed doctrine of Leibniz the monads 'have no windows,' or, perhaps we might say irreverently, no front-windows, through which they may come into real relations with objects : but the result is that they have to be conceived as under continual illumination by a God, who gives them the apparent experience of a world of which directly they could know nothing. They are isolated from reality in a phantom universe of their own, a sort of spiritual theatre set up in their own souls ; but care is taken that the great drama of existence shall be re-enacted on this private stage. Berkeley, in the end, had accepted nearly the same modified form of Sub-

jectivism, dismissing, what on this theory was superfluous<sup>1</sup>, the reality of any world but a world of spirits and their conscious states. And in this shape, which is supposed to derive some support from Kant, the doctrine seems still to be accepted by some writers, as the genuine result of idealism, and it has been both attacked and defended on this basis. For, while there are those who find in such a doctrine a *reductio ad absurdum* of all idealism, there are others to whom, as to Berkeley, it seems a valuable safeguard against materialism, and a fundamental element in any spiritualistic theory of the world. Fearing the abyss of *Solipsism*, and reading in a onesided way the truth that all objects as such are relative to the subject, such writers would compromise with the enemy, and abandon to him all parts of the universe in which they cannot find thought and will, or at least some form of consciousness; and they would declare in this sense that 'all reality is spirit,' that is, that reality consists solely of conscious beings and their states of consciousness. But I am afraid that the enemy will not be propitiated even by this sacrifice, and that the denial of the reality of the material world will inevitably lead to the denial of the reality of any world at all.

With such subjectivism the German idealism had no necessary connexion, at least after Fichte had removed the last fragment of it from his philosophy. The result of Kant's teaching, when it was freed from the contradictory notion of the 'thing in itself'—that Irish Bull in philosophy, as Heine calls it—was not to cast any, even the slightest, doubt on the reality of the external world, but only to show that a new element must be added to all that we know of it as an external world, namely, its relation to the subject. No doubt, this new element brings important modifications into our previous views of objectivity. For, on the one hand, it absolutely precludes the attempt to explain the spiritual by the material, and, indeed, compels us to conclude that there is no material world which is not also spiritual. And, on the other hand, as the correlation between the self and the not-self is not onesided, it brings with it also the conviction that there is no spiritual world which

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<sup>1</sup> Leibniz also conceives all the monads as in a sense spiritual unities each having a perception of the whole.



is not also material, or does not presuppose a material world. Thus the reality of that which is other than the self-conscious intelligence is seen to rest on the same basis with that of the self-conscious intelligence itself, and the one cannot be denied without the other<sup>1</sup>.

But at this point a new difficulty has arisen. So soon as it is understood that the assertion that all objects are relative to the subject, involves the counter-assertion that the subject as such is relative to the object, we seem to be involved in an antinomy between two forms of consciousness, which can neither be reconciled nor separated. We seem, in fact, to be forced alternately to make the subject an adjective or property of the object, and the object an adjective or property of the subject ; in other words, to set up two opposite theories, materialism and subjective idealism, each of which has its own independent value, and neither of which can be put aside in favor of the other. This balancing or dualistic view is substantially the theory adopted by Clifford and Huxley, and it has been fully worked out by Mr. Spencer. These writers, in short, use the double relativity of consciousness and self-consciousness, or of matter and mind, as the means of escaping both from the objections to materialism, and from the objections to subjective idealism : but what they set up in place of each of these theories is simply the assertion that, from a phenomenal point of view, they are both true, while from the point of view of reality, we cannot establish either of them. Thus there are two independent ways of looking at the world, each of which claims the whole field of existence for itself and is, therefore, absolutely opposed to the other. Each of them, indeed, has its usefulness for certain purposes of science, the one as a principle of physics, and the other as a principle of psychology, but neither can finally vindicate itself as the truth to the exclusion of the other. We are, therefore, in the presence of an immovable difference which defies reconciliation ; and the absolute reality which lies beyond these opposites, must for ever baffle our understanding,

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<sup>1</sup> There is, indeed, a sense in which all that is apprehended by the intelligence must have something of the nature of the intelligence in it. On this subject I may refer to what I have said elsewhere (*Evolution of Theology in the Greek Philosophers*, vol. i, p. 193 seq.).



though, as Mr. Spencer holds, it is presupposed in the very nature of consciousness. Hence we may regard the world *either* as a connected system of motions in matter, *or* as a connected system of modes of consciousness, and from either of these hypotheses important scientific results may be derived ; but we can neither decide for one of the alternatives to the exclusion of the other, nor can we rise to any higher point of view which would embrace them both. 'See then our predicament,' says Mr. Spencer, 'we can explain matter only in terms of mind : we can think of mind only in terms of matter. When we have pushed our explanation of the first to the farthest limit, we are referred back to the second for a final answer, and when we have got the final answer of the second, we are referred back to the first<sup>1</sup>.'

There is a superficial plausibility in this view, but it is difficult to conceive one which is fundamentally more incoherent. It 'splits the world in two with a hatchet'. It breaks up consciousness into 'two consciousnesses,' which are somehow united, though there is no logical way from the one to the other : and it fails altogether to explain the actual combination of the two in our daily experience. For, just because Mr. Spencer makes the difference of mind and matter absolute, he can admit the unity only in the form of an abstract 'One' in which all difference is lost. At the beginning of his *First Principles*, he lays down the logical doctrine, that thought is essentially the limitation of an infinite or unconditioned being, a being of which we have only a 'dim consciousness,' as that which is presupposed in all definite apprehension either of the object or of the subject. But the unity thus presupposed is unknowable, and that which we know is confined to the phenomenal. Thus each of Mr. Spencer's two conceptions, his conception of the phenomenal world with its insoluble difference, and his conception of the unknowable being which alone is real, seems to require the other as its complement. The abstraction of the unity leaves the duality of matter and mind without any connecting link, and the equally abstract duality of mind and matter cannot be reduced to unity except by the suppression of

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<sup>1</sup>*Principles of Psychology*, i, p. 627, § 272.

their distinctive characters. Hence the unity and the difference cannot be regarded as both real, and if, as with Mr. Spencer, the unity is treated as real, the duality must be regarded as merely phenomenal. All our science, therefore, deals merely with appearances, which we cannot bring into relation with reality. The impulse of reason to seek for unity cannot be set aside, but under the conditions of Mr. Spencer's theory, it can be attained only by the sacrifice of knowledge itself. The result is instructive as pointing to the fate of all theories that set the 'one' against the 'many.' Abstract Monism and abstract Pluralism are not, strictly speaking, two philosophies but different aspects of the same philosophy. Polytheism always ends in setting up a fate beyond the gods.

The Spencerian philosophy, however, is valuable as a protest against its opposite, against any 'too easy monism.' It is a legitimate criticism both upon subjective idealism and upon materialism, though it only puts one one-sided theory against another, and maintains that both have equal rights. If we could not do better, it might be well to compromise upon the Spinozistic idea of the parallelism of the two unrelated attributes of extension and thought, or, upon Schelling's conception of the balanced equality of the real and ideal factors of the universe, even though the result, as with Mr. Spencer, were to leave us without any unity which was more than a name.

We are not, however, shut up to such a desperate course ; for the main result of modern philosophy and especially of modern idealism has been to put a concrete, in place of an abstract unity, or, in other words, to vindicate the essential correlation of the self and the not-self. Idealism in this sense has nothing to object to the strongest assertion of the reality of the distinctions of matter and mind, or of any of the distinctions and oppositions that enter into the theoretical and practical consciousness of man. But it maintains that there are no *absolute* differences or antagonisms in the intelligible world, no distinctions which do not imply relations, and, therefore also, an ultimate unity between the things distinguished : and, of course, it must refuse to admit that there is an unintelligible world, a world that cannot be brought in relation to the intelligence.

Here, however, we must stop to meet a possible misunderstanding. There are many at present who are justly jealous of an easy monism, and some perhaps who, less justly, carry their jealousy to the point of practically refusing any ultimate unity at all. Hence, when it is stated to be an essential result of idealism that there is a unity beyond all difference and through all difference, they are apt to think that this involves the denial of the reality of the differences. Thus they seem to hold, as Spencer seems to hold, that we can distinguish without relating, or relate without admitting any unity within which the difference is embraced. And in this they get much support from the ordinary consciousness : for the 'plain man,' as he is called, prior to reflection, is apt to alternate between unity and difference without bringing them together : he is ready, therefore, to take any distinction which he recognizes as absolute: and, on the other hand, if any doubt is thrown on the absoluteness of such a distinction, he is inclined to infer that it ought to be dismissed as altogether unreal. No one who has got beyond this naïve state of consciousness, will allow himself to be impaled on either horn of its unreal dilemma. But, if we have once renounced such abstract ways of thinking, I do not see how we can stop short of the result that the one and the many, so far from being opposed, are factors of thought which cannot be separated without contradiction. An absolute difference would be no difference at all ; for it would annihilate all relation between the things distinguished, and, in doing so, it would annihilate itself. This is a principle of logic often illustrated by the fate of dualistic systems of thought, which in seeking to emphasize the reciprocal exclusiveness of two opposite principles, have ended by depriving them both of the very character in virtue of which they were opposed. Thus Manichaeism, when it took evil as absolute, as a reality quite separate from good, inevitably made it lose its character as evil ; for it thus turned evil into an independent substance, which in itself had no opposition, because no relation, to good. We can have opposition only within a unity, and, if we try to stretch it farther, we overreach our object, and end by making the opposition itself impossible or meaningless. Any one, therefore, who thinks that a refusal to admit pure abstract contradiction between two terms—say,

between truth and falsehood, or good and evil—involves the denial of all validity or reality to the distinction in question, must be reminded that relative opposition is the only real or conceivable opposition, and that distinctions are in effect denied whenever they are made absolute. Thus those who carry any difference to the point of dualism do away with that very difference by over-emphasizing it, just as surely as those who disregard or abstract from difference in the interest of unity. The parts of the intelligible world mean nothing except in the whole, and the whole means nothing except as distributing itself to the parts, and constituting their spiritual bond<sup>1</sup>.

If there is any truth in these views, the only reasonable controversy between philosophers must be, on the one hand, as to the nature of the all-embracing unity on which every intelligible experience must rest, and on the other hand, as to the nature of the differences which it equally involves. To ask whether there *is* any such real unity, or whether it embraces real differences, is to attempt to leap off one's own shadow ; it is to try to think, while attacking the only basis on which we can think. We cannot play the game of thought, if one might use such an expression, without taking our stand upon the idea that the world is a self-consistent and intelligible whole ; though of course, this does not mean that any actual attempt to systematize our knowledge can be more than a step towards the attainment of the ideal of a perfect analysis and re-synthesis of the manifold content of experience. The problem of knowledge is to find out how the real unity of the world manifests itself through all its equally real differences, and we can show that any abstract view, such as those of Berkeley or Spencer, which would deprive us of any element in it, would make the progressive solution of it by science and philosophy impossible. But we cannot prove these presuppositions of all knowledge directly, or by making the system based upon them complete, if for no other reason, because with our increasing experience the problem itself is always enlarging. In this sense, the work

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<sup>1</sup> Dr. Ward, in his able *Lectures on Naturalism and Agnosticism*, admits frequently the correlation of subject and object ; but he seems to me in effect to withdraw this admission, when he speaks of each individual consciousness as having a subject and object of its own.

of science, and still more the work of philosophy, must always be a work of faith, meaning by faith, not believing anything merely upon authority, but proceeding upon a principle the complete vindication or realization of which is for us impossible; for, obviously, nothing short of omniscience could grasp the world as a complete system. It is involved in the very idea of a developing consciousness such as ours, that while, as an intelligence, it presupposes the idea of the whole, and, both in thought and action, must continually strive to realize that idea, yet what it deals with is necessarily a partial and limited experience, and its actual attainments can never, either in theory or practice, be more than provisional. Aristotle<sup>1</sup> has expressed both sides of this ideal in one of his most comprehensive sayings, when he declares that 'as, in practice, it is our highest aim, starting with what *seems* good to us individually, to make what is absolutely good our individual aim, so in theory, we have to start with what seems true to us individually, but the object we seek is to make what is really and naturally intelligible or true, true or intelligible for ourselves.' In other words, we have to look at the world, *in ordine ad universum* and not *in ordine ad individuum*, from its real centre and not from the centre of our own individual existence: and the task is not one which is forced upon us externally, but one which is laid upon us by the nature of the reason which is within us. Aristotle, therefore, holds that it is possible for us to make the universal point of view our own, as it is also possible for us to make the absolute good the end of our lives. But we have to add to what Aristotle says that this end is one which is ever *being* realized, and never is finally realized by us. It is a faith which is continually passing into knowledge, but never becomes complete knowledge.

If however in one sense we must call this idea a faith, we must remember that is in no sense an arbitrary assumption: rather it is the essential faith of reason, the presupposition and basis of all that reason has achieved or can achieve. We may admit that, as Tennyson says, in this aspect of it our 'deepest faith' is also our 'ghastliest doubt'—the doubt whether the

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<sup>1</sup> Met. 1029 b, 5 seq.

whole system of things to which we belong is not illusive and meaningless. But, apart from this inevitable shadow of our finitude, the real difficulties of knowledge and practice lie not in the idea or ideal of our intelligence, but rather in the application of it to the particulars of thought and life, in carrying out the effort to co-ordinate or affiliate the different appearances as elements of one reality, or, as Mr. Bradley would express it, to determine what is the 'degree of reality' that belongs to each of them, when brought in relation to all the rest, and to give it in our practical life the importance which really belongs to it. But to question whether the whole is an intelligible system, is as vain as to question whether any part of our experience, even the most transient and illusive of appearances, has a place in that system.

There is, indeed, a way of escaping from this view of reality as a systematic whole which has been often tried. This is to take our stand upon some particular principle or principles, or upon some particular fact or facts, as self-evidencing or immediately 'given' truth, on the fixed certitude of which we can build our further knowledge. Mr. Andrew Lang in his book upon *Myth and Ritual*, tells us of a theological child, who described the creation of the world in the following terms: 'God first made a little place to stand upon, and then he made the rest.' Sophists have often sought for some special criterion of truth, for some basal principle, like the *Cogito ergo sum* of Descartes, or for some *datum* or *data* of sense, as a foundation on which they might build their system. But the search is a vain one. For, when we examine any such principle we discover that it is only one aspect of things, which has no claim to be taken as prior to the other aspects of them, and which proves the others only in the same sense in which it is proved by them; and also that in being brought in relation to those other aspects, it is subject to re-interpretation. And, in like manner, when we examine any supposed *datum* of sense, we find that it is merely one appearance, which helps us to explain other appearances only as it is explained by them, and that its ultimate interpretation depends on the way in which it combines with all our previous consciousness of things. All that is certain about any such *datum*, in the first instance, is that it has

an indubitable claim to be recognized as an element in the intelligible world ; but how much truth there is in the first presentment of it we cannot tell, till we are able to think it together with the other elements of our experience. In other words, it must be interpreted so as to cohere with them, and they must be interpreted so as to cohere with it. But whether this will lead to its being explained, or to its being explained away, or as it is more likely, partly to the one and partly to the other, we cannot tell *a priori*. We cannot, therefore, take our stand on any one *datum* or principle taken by itself ; for, taken by itself, it cannot be known for what it really is. We can only take our stand on the unity of the whole system, in which everything that claims to be a fact or a truth must find a place. Thus the idea that there are certain intuitions or perceptions which we can take for granted as *prior* to, and above all criticism, and which remain, in all the discourse of reason, as the fixed and immoveable basis of the whole edifice of science, involves a fundamental mistake. Indeed, the activities of the intuitive and the discursive reason can never be separated without making the former 'blind,' and the latter 'empty.' We always presuppose the unity of the whole in every determination of the parts in distinction from, and in relation to each other : and no element of the whole can be presented apart from the process whereby we distinguish and relate it within the whole. We are thus, throughout all our intellectual life, advancing from a confused, imperfectly differentiated, and therefore imperfectly integrated, experience, towards an organic system of knowledge, in which justice shall be done to all the differences and oppositions of appearances, without sacrifice of their essential unity. And it casts confusion upon the whole process, when we treat it as if it were confined to the work of building upon fixed foundations, which are given either in sensation or in thought, apart from any process at all. On the contrary, it cannot be adequately represented except as an evolution, in which it is only the last product that shows distinctly the meaning of the germ out of which it sprang.

The view that has just been stated contains, I think, the essentials of that conception of knowledge which has been maintained by the greatest representatives of modern idealism ; and



it is obvious that it has no special kindred with the philosophy of Berkeley, and, from that point of view, is no less realistic than it is idealistic. At the same time, it may be acknowledged that in the process of working towards this result and, especially, in seeking to reply to those who treated knowledge as something given to the mind from without, idealists have sometimes dwelt too exclusively on the subjective aspect of knowledge. This was the case, as we have seen, with Kant, and it is apt to be the case with those who go back to Kant, and take their start from him. We may add that it is apt to *seem* to be the case with such writers, even when it is not really so. Thus the views of T. H. Green are often misunderstood by those who do not recognize how much his language is colored by opposition to authors like John Stewart Mill, whose philosophy was in the ascendant when Green began to write, but whose views are no longer so prominent in the mind of this generation of philosophers as they were then. Hence difficulty is apt to be caused by Green's constant insistence on the constructive activity of the mind in knowledge, carried, as it necessarily is, to the point of denying that any element of truth can be given to the mind apart from such activity. Such a doctrine seems to many to involve a denial of the objectivity of knowledge, and it has even provoked in some a reaction against all idealism, and a tendency to fall back upon 'the given' in the sense of naïve realism, i. e. upon the idea that at least the basis of experience is presented to consciousness without any activity of its own. And even the most conclusive demonstrations that it is impossible to detect any such *pure datum* have failed of their effect, because of a lurking suspicion that the reality of the objects of consciousness was being undermined. When Disraeli on one occasion was questioned as to the political platform on which he stood for election to a seat in parliament, he answered that he 'stood upon his head.' But if that is a sufficient basis in politics, it can hardly be admitted to be so in the theory of knowledge. And when an idealist speaks of 'the judgement by which we sustain the world,' however adequate may be his explanation of such language, it is apt to excite a suspicion that his theories, if they were completely carried out, would lead to the individual being regarded as his own universe and his own God. This sus-



picion, perhaps as much as any other reason, is what drives many to accept some *via media*, in which the subject and the object are represented as in some way acting and reacting on each other—some such view as is implied in the metaphor of 'impression by,' or 'contact with' reality, and to substitute it for an organic conception of the relations between the mind and its object. Such a suspicion the idealist is bound to remove, if he expects his theories to be accepted ; yet he must do so, of course, without compromising his fundamental conception of the relativity of the intelligible world to the intelligence.

Now, so far as this difficulty arises out of the Berkeleian theory that the mind has primarily to do only with its own ideas, it may be met by the considerations already suggested. As the consciousness of the self is correlative with the consciousness of the not-self, no conception of either can be satisfactory which does not recognize a principle of unity, which manifests itself in both, which underlies all their difference and opposition, and which must, therefore, be regarded as capable of reconciling them. When, therefore, we speak of the object as manifesting itself in, and to the subject, determining his perceptions, thoughts and desires, and when, on the other hand, we speak of the subject as constructing his world in knowledge, and making it in action the means of his own self-realization, we are using language that represents two aspects of the truth, which are apparently opposed, but each of which has a relative validity ; and it is important that we should not allow either of these forms of expression to exclude the other. To say that the mind goes beyond itself to become conscious of the world, or to say that the object goes beyond itself to awake consciousness of itself in us, are two extreme ways of putting the fact of knowledge, which have opposite merits and opposite defects. And, in like manner, in regard to our practical life, to say we are always determined by objects, or to say we are always determined by ourselves, is to utter half-truths. Neither of these statements is quite adequate ; nor can we reach the whole truth merely by putting them together, and saying that we are partly determined from without and partly from within. For, if we accepted this reciprocal determination of subject and object as our final account of the matter, we should be left with a me-

chanical conception of action and reaction between two things which are external to each other, and we should be driven to deny that there is any unity which transcends the difference and manifests itself in it. Yet that, as I have attempted to show, is just the idea we have to admit, so soon as we realize that we can have no consciousness of the difference and relation of the two terms except on the basis of such a unity. We always presuppose the unity of consciousness in all our experience, inner and outer ; but dualism seems natural to us because in our ordinary modes of thought we only *presuppose* it, and do not specially attend to it or reflect upon it. Our eyes are directed from the unity we tacitly assume to the differences we openly assert. Yet the whole problem of our lives, the problem of practice no less than the problem of the theory, is made insoluble if we begin by assuming the absoluteness of the difference between the self and the not-self, and only then ask how we are to mediate between them. If this were really the question, it could not be answered ; but neither could it ever have arisen for us as a question at all. If, therefore, any one bases his theory on a presupposed dualism of subject and object, we may fairly ask how he comes to believe in it : and this is a question which he cannot answer at all without treating the difference as a relative one. But if it be so, the common notion that the Absolute, the ultimate reality, the Divine, or by whatever name we chose to name it, is a far-off something, a *Jenseits* or transcendental 'thing in itself,' involves a fundamental mistake. And it is no less a mistake to suppose, with Mr. Spencer, that it is a mere indeterminate basis of consciousness, of which we can say nothing except that it is. It must be regarded as a principle of unity which is present in all things and beings, and from which they, in their utmost possible independence, cannot be separated. It must be conceived, in short, as that in which they 'live and move and have their being.' And in the case of conscious and self-conscious beings such as we are, this unity must show itself as the underlying principle of all their conscious life. It is, therefore, no metaphor or overstatement of religious feeling, when we say that the consciousness of it is the presupposition both of the consciousness of objects and of the consciousness of self, if only it be remem-

bered that, just because it is *πρῶτον φύσει*, it is *ὑστατον ἡμῖν*, i.e. that it is the last thing which we make an object of our thought. On the other hand, though it be last in thought, yet it may be maintained that neither the consciousness of the objective world nor the consciousness of the inner life of the self can attain its highest and truest form until this presupposition is distinctly realized, as it is in religion, and also, we may add, until it is made the direct object of reflection, as it is in philosophy. The greatest task of philosophy, indeed, is just to consider how the constant presence of this unity modifies the contents both of the subjective and of the objective consciousness. How far and how this task can be achieved, I cannot at present consider ; but in any case it seems clear that neither the subject nor the object can be known for what it really is, until their reciprocal correlation is taken into account, and until this correlation is itself seen in the light of the unity which it presupposes.

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## RHYTHM IN PROSE.

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THE necessity for rhythm in the writing of prose has been acknowledged by all competent judges from Isocrates down to the present day. Some go further and maintain that it is the most essential of formal requisites in all composition that makes any claim to rank as literature. The inner ear of the reader may be offended by the griding collocation of consonants, and by the monotonous recurrence of vowels, but this defect of style, hideous in its possibilities, has no result comparable with the disappointment, the irritation, the feeling of being somehow balked and defrauded of a due, inflicted on us by the halting and defective rhythm. Conversely he has a poor sense who does not derive deep satisfaction from the flowing and rightly modulated sentence, who does not feel that the impression on the understanding or the emotions has been thereby more convincingly sent home. The ear is insistent in its demands, and hence those writers who pursue of set purpose the "horridum sermonem," the "natural and manly style," contemptuous of rhythm, have need to content them with a sense of their own virtue, for their books soon drop from the hand of the reader and are taken up again only on compulsion and with a shiver of repugnance.

In the history of literature verse precedes prose, and prose was at first not rhythmical. But before either prose or verse were thought of, rhythm must have existed in the common speech of the people. The rhythm of the spoken word is a thing natural and ultimate: influences have fashioned it that are now beyond our power to trace or disentangle. The speech of the unsophisticated peasant runs to rhythm: he has this at least for his heritage—a wealth of rhythmical phrase which in the lapse of centuries has approved itself to the national ear. Take vernacular Scotch as an example. No individual Scot could have invented the unnumbered felicities of rhythm which mark his language in its natural form and which the educated man has cast aside, leaving himself the poorer. The age-long



process of selection does its work with a sure hand. One need only keep one's ears open to the talk of the children of the soil in order to note how rhythmically their speech flows on, smooth as a burn over the worn pebbles. But where this experience is impossible, we may look for proof in the pages of those writers who have most faithfully presented the common speech of Scotland. Sir Walter Scott knew well the rhythm of his native tongue. So did Robert Louis Stevenson. So do not the modern botchers, who give colour to the libel that Scotch is but a degraded form of English, and who in their wretched staccato, jerked from scrannel straw, do outrage to the rich melodies of their language.

Let us put it to the test. Surely no ear can miss the lilt in the speech of Andrew Fairservice, of Cuddie Headrigg and Richard Moniplies, to name a few only of the immortals : certainly no Scotch ear can fail to recognize the perfect fidelity of the presentation. Opening "Old Morality" at random we find such a gem as this :—"A feckless loon o' a Straven weaver that has left his loom and his bein hoose to sit skirlin' on a cauld hill-side, had catched twa dragoon naigs, and he could neither gar them hup nor wind, sae he took a gowd noble for them baith. I suld hae tried him wi' half the siller, *but it's an unco ill place to get change in.*" And in an earlier chapter : "I ne'er gat ony gude by his doctrine as ye ca't, but a sour fit o' the batts wi' sittin' amang the wat mosshags for four hours at a yokin', and the leddy cured me wi' some hickery-pickery ; mair by token, had she ken'd hoo I cam' by the disorder, *she wadna hae been in sic a hurry tae mend it.*" Finer still in the end of the book :—"Ailie, (he aye ca'd me Ailie, we were auld acquaintance) "Ailie, tak' ye care and haud the gear weel thegither; for the name o' Morton o' Milnwood's gane oot like the last sough o' an auld sang. And sae he fell oot o' ae dwawm into anither, and ne'er spak a word mair unless it were something we couldna mak' oot, aboot a dipped candle being gude eneugh tae see tae dee wi'. He could ne'er bide tae see a moulded ane, *and there was ane by ill-luck on the table.*"

These sentences, barring one or two surd passages, manifestly sing themselves and the identity of movement in the three final clauses is obvious. Moreover, though it is some-

what premature to maintain it, they exemplify the great cardinal truth that the excellence of prose rhythm depends quite as much on considerations of quantity as on the recurrent beat of the accent. In illustration of this important doctrine and in justice to the other great artist in Scotch prose a few lines may be added from the Master of Ballantrae and the English reader, no doubt by this time more than surfeited, will be immune from further trial: "The puir bonny Master, and the puir kind lads that rade wi' him were hardly ower the scaur, or he was aff—the Judis! Ay weel he has his way o't: he's to be my lord nae less, and there's mony a cold corp amang the Hieland heather!"

From such quotations, which might be multiplied indefinitely, it is clear that in the view of Scott and Stevenson at least—and they are weighty authorities—the quality of rhythm is natural and inherent in the common speech of their country. And what is true of Scotch may be presumed to hold good in greater or less degree for all languages. The speech of the people is the origin of Rhythm in Verse and Prose, but not, be it remembered, in any sense the raw material on which the prose artist works, for the natural genius of language has fashioned cadences as perfect as ever flowed from pen.

That there is such a thing as National Rhythm, that different rhythms in the spoken word come natural to different peoples, is a statement which bears probability on the face of it, though an extensive knowledge of vernaculars would be necessary for its illustration. It is easier to show that distinctive rhythms have a special fascination for individual ears among the educated. No more striking example of this can be found than the prose of R. D. Blackmore, the author of the once widely popular "*Lorna Doone*." It fairly runs riot in hexameter and anapaestic movements. If we waive for the present the difficult question as to whether English Rhythm depends on Accent or on Quantity or on both or on neither, and the equally difficult one as to the best mechanical means of representing rhythmic quality, the following sentences taken from the early pages of the above mentioned work may be roughly divided so as to exhibit the measures with sufficient clearness. In the first chapter he has: "(when . . . the Taunton brook) comes foam | ing down | like a great | roan horse | and



rears | at the leap | of the hedge rows | ." This is more than Rhythm : it is almost metre, an element forbidden to prose. If we may borrow without prejudice the terminology of the Greeks, it is almost perfect Anapaestic tetrameter Catalectic, that is to say it consists of eight Anapaests ( ~ ~ - ) or equivalent spondees wanting one syllable. If we cut off the words "comes foaming" and read "down like a | great roan | horse and | rears at the | leap of the hedgerows," we have, but for the weak third foot, as good a Dactylic Hexameter as we could wish. Again he gives us an Anapaestic opening with weak finish in "Now well | may it go | with the head | of a boy | intent | upon | his pri | mer | ," and a more complete line in "(while sitting at the desk) of the jun | ior first | in the up | per school | and begin | ning the Greek | verb  $\tau\acute{\upsilon}\pi\epsilon\iota$  |  $\tau\omega$ ." A positive couplet, though less strictly metrical, emerges in "Then with a yell the boys leap up or break away from their standing ; || they toss their caps to the black beamed roof and haply the very books after them | ." Lastly we have rough Dactylic Hexameter in "(But) while we were | yet pre | paring and | (the) candles | hissed in the | fog cloud | " ; and viciously perfect Iambic metre in "And some of these would turn sometimes | and strike the boy that kicked them."

The above instances of addiction to the Anapaest are more or less perfectly metrical and have been purposely chosen on that account, in order that the rhythm may be more readily caught. But there are many scraps and tags of the same measure besides these to be culled from the first two chapters of "Lorna Doone," and scores upon scores to be found in the work as a whole, affording ample evidence as to the way in which the ear of the individual may be more or less unconsciously possessed by a definite rhythm, and holding out the hope, illusory perhaps, that the distinctive swing of each of the great masters of prose, which is not metre but cunningly wrought rhythm, may be forced to yield its secret to analysis. But before we are ready to make such an attempt we have a long way to travel.

The occasional intrusion of metre into prose, often where it is least expected, is worth while considering from another point of view. Ancient and modern critics alike have declared



emphatically that while prose must be rhythmical, it must not be obviously so, and must least of all be metrical. Quintilian puts it with some emotion. "Versum," he says "in oratione fieri multo foedissimum est, totum ; sed in parte, deforme." Why is definite metre to be avoided in prose? Why is it "foedissimum"? We can see the grotesqueness of Dr. Smith's famous "drop into poetry" in his "System of Optics"—"where parallel rays | come opposite ways | and fall upon opposite sides ;" and of Whewell's "Hence no force however great | can stretch a cord however fine | into an horizontal line | which is accurately straight." | But these are accidental eccentricities : their effect is bizarre because they occur in severe works of science, hardly to be classed as literature. The case is different when we are dealing with composition in which beauty of form is an essential. Aristotle, discussing the question with primary reference to public speaking, tells us that Prose should not be metrical nor yet devoid of rhythm, for if it be metrical it will appear artificial and therefore lack conviction. Moreover it distracts the attention, since the hearer is always on the look out for the recurring cadence. On the other hand there is no objection to rhythm. Rather is it indispensable, for what is unrhythmical lacks *πέρας* or limit—it is amorphous and therefore displeasing and difficult for the understanding to grasp. It is number that introduces *πέρας* into everything and number applied to composition gives *ρυθμός*, while metre is rhythm chopped up into definite lengths corresponding to one another. Prose must not have metre, nor even rhythm very exactly, but only carried to a certain point and not continuous. All this is very sound. In effect it means that the writer must steer a middle course between glaring artificiality and straggling shapeless workmanship which disgusts while it dazes the mind of the reader. It is true that his contention has a special truth and relevance for the oral address; Longinus, for instance, informs us that sometimes the audience actually beat time to over-rhythmic oratory and outpaced the movement of the sentence in derision of the speaker. But, after all, the principles that guide the spoken word and the written page are fundamentally the same; the

only difference is that the composition meant for oral delivery had to stand, with the Greeks at least, far the severer trial.

The moderns who have touched the point approach it from a somewhat different direction. They are more concerned with discovering the source of the evil in the weakness of the individual writer and with holding him up to execration. Thus John Addington Symonds has these edifying remarks: "The style of poetry differs essentially from that of prose, and neglect of this fact leads to hybrid composition which offends the purest taste. Poetical prose and word painting are common with those writers who have not made up their minds in what direction their powers lie—who would fain be poets and yet choose the seemingly more facile vehicle of prose to utter their emotions." We may take this with some confidence from Dr. Symonds: he if any man ought to know, for he has written page upon page of prose hardly to be distinguished from blank verse. We are filled with admiration for his candid self-analysis when we come across a sample such as this: "Or we may recall by fancy | the olive groves of the academy | discern | Hymettus pale against the burnished sky | and Athens guarded by | her glistening goddess of the mighty brow— | Pallas who spreads her shield and shakes her spear | above the labyrinth of peristyles | and pediments in which her children dwell | ." "I'll rhyme you so, eight years together; dinners and suppers, and sleeping hours excepted!"

We have a different diagnosis from Robert Louis Stevenson. "It is owing," he says, "to the inherently rhythmical strain of the English language that the bad writer, the inexperienced writer and the jaded writer all tend to fall at once into the production of bad blank verse"—bad, because the accidental versifier cannot compass the infinite variety of rhythm without which no blank verse can pass muster. But why "the jaded writer"? His meaning must be that on the shoulders of the prose writer is laid a far heavier burden than that borne by the versifier. The verse writer has his mould ready made in the definite metre of the line. The prose writer has to make his own moulds. Verse, in Cicero's words, has a "*quaedam et definita lex*," it has trammels against which the poet may kick, but which in reality are his truest friends and guides.

There is hardly any licence denied him within the limits of the line, but the standing sum of time-quantity is always there to repress and correct extravagation. Prose, on the contrary, has no other law save that it must not be "*immoderata aut angusta aut dissoluta aut fluens*." For every sentence the prose writer has to construct a new rhythmic framework into which his ideas are to be fitted. He must be constantly varying his pattern to avoid monotony, while at the same time he keeps an eye on the relation of these rhythmic wholes to one another and on the general result as appearing in the paragraph where the sentence diversity must make a unity. A slight surplusage or deficiency of syllables may disturb the proportions of his clauses and wreck the harmony of the whole. He builds in space at large, unlike the poet who fills a measured blank: he has perfect freedom, but a freedom that is apt to turn into the most galling bondage. The burden is so grievous that at times, by suggestion of the Evil One, ever at his elbow, he is tempted to fill up gaps in the sentence outline which he has conceived in thought, by that basest of devices, the "*complementa numerorum*," as it were "*inferciens verba (ut) rimas expleat*." But if he yields, he is lost; for this, the artificial bellying out of the clause to the necessary rhythmic rotundity, is the crime of crimes, the most nauseating of literary vices. He sinks at once to the level of the ordinary prose artisan, whose working stock consists of a collection of empty moulds borrowed from his reading and not called into existence and form by the idea that waits expression. As the taste of such a writer usually runs to the magnificent and the expansive, it not infrequently happens that the thought proves too small and shrunk for its spacious receptacle, and has to be eked out by phrases that are mere cobwebs, whose absence or presence makes no difference to the meaning. Beset by difficulties so immense and perils so desperate, it is no wonder if the lazy or the "jaded" writer, who is constrained to keep his prose at a certain elevation of note, unconsciously slips into the most ready and natural of all moulds, the metre of the Heroic line. It is not always therefore the unbridled lust of fine writing that drives us into blank verse.

Aristotle with his grim common sense has shown good cause why prose should not be metrical : as he truly says, if prose has metre it will be a poem. But neither he nor any of the authorities we have quoted has quite touched the reason why a positively recognizable line of verse standing by itself is for the most part objectionable in prose. It seems to lie in the fact that it is always very difficult to glide away smoothly from one movement to another. Even a single metrical line inevitably suggests a continuation of the same strain, and the ear suffers a painful jar by a change of rhythm. Take such a sentence as this of Poe's : "And all at once | the moon rose through the thin ghastly mist | *and was crimson in colour*" : the change from the Iambic rhythm to the pæon ( ~ ~ ~ ) and amphibrach ( ~ ~ ~ ) | is desolating. Or this again from Sir Thomas Browne : "(Meanwhile Epicurus) | lies deep in Dante's hell | wherein we meet with tombs enclosing souls | *which denied their immortalities.*" Here again we are disquieted by the abrupt change from Iambics to Trochees. But when he writes : "(A dialogue. . might handsomely illustrate our ignorance of the next) whereof methinks we yet discourse in Plato's den | and are but embryo philosophers | ", we are not equally perturbed because there is no check in the Iambic rhythm. Both sentences may be bad, but of the two the first sins the more. In the ideal composition we are never allowed to dwell very long on any one rhythm and the ear is thus saved from disagreeable conflict. In support of this view it may be further urged that a heroic line is least offensive and may be even an excellence when it ends an elevated or impassioned sentence, just because its position precludes the possibility of a clash of rhythms. One does not very seriously find fault with endings like Landor's "(there is no name with whatever emphasis of passionate love repeated) | of which the echo is not faint at last." And there is no "intolerabile vitium" in Ruskin's "(flashes of its sheeted light are borne to him by) the melancholy waves | and cast away with sighs upon the sand | " or in "to them slow pencilled iris-dyed | the tender framing of their endless imagery." It is only when he duplicates that we feel we must call a halt. "The gathering orange stain | upon the edge of yonder western peak | reflects the sunsets of a

thousand years." This goes over the score ; it is poetry, not prose. It is deliberate and artificial ; no effort is made to escape from the clutches of metre. But we sometimes find a writer dallying as it were with a movement and cunningly avoiding a serious entanglement. This may be said of De Quincey's "Hers is the meekness that *belongs* to the hopeless, | murmur she may but it is in her sleep ; | whisper she may but it is *to herself* in the twilight," where the substitution of accented monosyllables for the words italicised would land us in Dactylic metre, a snare less peculiarly fatal to the prose writer than the Iambic. Here the situation is saved in some measure by expansion ; the effort to attain the same result by excision is always irritating, as may be seen from Blackmore's licentious trochees in the first chapter of "Alice Lorraine" :—"Also in the breaks of meadow | and the footpath bendings | stiles where love is made in earnest | at the proper time of year | with the dark-browed hills imposing | everlasting constancy."

It is easy enough to see that metre will not do in prose, but how is good Prose Rhythm secured ? It might be thought that an element so conspicuous in composition was capable of easy analysis ; as a matter of fact there is nothing so baffling and elusive. The subject has been much neglected in modern times, and there is little help to be got from the professional critics, who confine themselves for the most part to vague commendation of this excellence in an author. Some go the length of telling us that the quest is hopeless, that the rhythm of prose depends on the reader, and that, as no two people read a verse of poetry in the same way—they instance the very first line of *Paradise Lost*—it is unlikely that any agreement will be found as to the right declamation of the much more vaguely marked prose. It is too subjective, they would have us believe, for scientific treatment. Others again cry out against the indignity of subjecting glorious swells and cadences to analysis ; they advise us to be content with the gratification which great prose affords to the sensual ear without prying into mysteries beyond our ken. It is difficult to yield assent to either of these views. We may grant that a very large number of Milton's lines are scanned differently by different authorities, but yet there is substantial agreement on this point, namely, that the Iambic

scheme is the framework of the English Heroic measure. And further, we might answer that our error would lie not in making the attempt to analyze rhythm as one of the elements of pleasing composition, but in claiming too much for its results. There is, of course, a point at which our "why?" can receive no response. The example of Verse reminds us that metrical analysis carries us a certain way, if only in supplying the language of æsthetics with a convenient vocabulary. We may cite such crude and trite instances as the Virgilian lines, "*Illi inter sese magna vi brachia tollunt*," and "*Quadrupedante putrem sonitu quatit ungula campum*." It will be admitted also that it is a convenience to be able to scan correctly Milton's "*Wallowing unwieldily enormous in their gait*." Prose rhythm exists as an undeniable fact. The artful arrangement of long and short, accented and unaccented syllables fills us with undoubted pleasure. Would any haphazard collocation of feet in a given sentence and with the same length of clauses affect us in the same way? Or if not, can we say why? How far is the rhythmic arrangement studied? Is it carried through the body of the whole or confined to the ends of clauses and sentences? What is the general effect of a predominance of, say, Trochaic, Anapaestic or Dactylic measure? It may be that there is no possible answer to such questions, but still there would remain this justification for the inquiry, that we might hope to lay down clearly the limits of what analysis can and cannot do in explaining the beauty of rhythmic prose.

With this modest end in view we have two courses open to us. We may attack specimens of English Prose Rhythm ourselves and try to wrest from them their secret: we may, or rather must, also test the sum total of what has been discovered by previous workers in the field. The second is a necessary preliminary and may possibly absolve us from a long investigation on our own account which could at the best be only partial. We turn, therefore, first, to the ancient writers on Rhetoric (confining ourselves in this paper to the Greek critics), for, as has been indicated, there is little help to be looked for from the moderns. The former at least have no misgivings as to their ability to answer our questions—to explain to us the æsthetic value of every foot, to lay down laws for rhythmic

synthesis and to declare what movements are good and appropriate for what kinds of composition as well as the reasons therefor. But here we are confronted with a serious difficulty, and unless we walk circumspectly we shall have a pack of critics after us in full cry. The rhythm of the classical tongues depended as is well known on Quantity; the basis of English Rhythm is speaking generally Accent. In Greek and Latin the quantity of a long vowel was by convention regarded as twice the length of a short, whence was derived a tripartite division of ratios, 1:2, giving us the Iambus (—) and trochee (—); 1:1 the spondee (—), dactyl (—), anapaest (—), &c., and 1: $\frac{3}{2}$  the cretic (—), and the Paeon, consisting of three shorts and a long, the latter occurring in any one of the four places. But what we call an Iambus in English may consist of two short syllables, the first unaccented, the second accented, as in the line “The pro’per stu’dy o’f mankind is man.” Quantity and accent appear to fall under different categories. Is, then, any dictum of Rhythm with a quantity basis worth a straw when applied to Rhythm dependent on Accent? Worse still, Quantity seems to be of no account in English Rhythm as exemplified in metre. How, save on the supposition that it is open to us to humour the line, could Longfellow have written his delectable Hexameters or Browning produced a flower like “No mile wide | mouthed monster | of yours will I marry?” Nay, we remember that there are some who will have none of either Accent or Quantity as the basis of English metric law, but this is not the time to bring to bear on them the batteries of metrical equivalents, Anacrusis, Truncation, dissyllabilisation of monosyllables, cyclic anapaests and dactyls, and the like, in order to put them to rout. Of the other objections let us take the second first. It might be sufficient to say that we have here to do not with Verse but with Prose, in which words retain their natural quantity. But we may go further. It may be admitted that in verse we frequently find accent overriding length of quantity, whether natural or acquired by position. But will any one say that this kind of thing can be indulged in at the pleasure of the writer? We leave out of account such cases as those in which the poet has some definite artistic effect in view when he promotes this strife between ac-

cent and quantity and ask whether the needlessly overweighted line is in and by itself a good line or even a tolerable line? Has a line like "Sad wearied | men they groaned | loud neither | long past the | dim gloaming | sat they" any claim to be called verse? Nor does the spondee in the Heroics alter the case. Why should not the spondee occur in Iambics? It must be remembered, too, that there are many syllables in English just as in Latin and Greek, the quantity of which is common and may be made long or short at the pleasure of the writer. This consideration will diminish very perceptibly the number of verses in which quantity seems neglected and strengthen the view that a heavily weighted line which without some clear artistic motive turns longs into shorts is simply a bad line. The case of quantity acquired by position is different. The English ear is admittedly not so sensitive to that. It is enough to show that it is quick to note a violation of natural quantity.\*

At first sight the other objection to the application of classical theories to English Rhythm seems more formidable. It cannot be denied that an accented short in English constantly takes the place of a long in the Latin and Greek Iambus, and a lean and beggarly result it often is. As verse cannot be written entirely out of shorts, neither can prose be so written. All good prose must have sound, and sound means length. And the English language fortunately abounds in natural longs and syllables that may be lengthened at pleasure. "Intrépíd" and "unda'unted" are both amphibrachs. We should not always use the latter, but where we do we are dealing with a word to all intents and purposes the equivalent of "Amamus." We might even go beyond this. Is it so certain that the quantity of a syllable is not increased, slightly it may be, but still increased by the accent? Whatever accent be, whether stress or loudness or sharpness of tone, it involves perceptible effort of the vocal organs, and this would seem to carry with it an addition of quantity. And it must be remembered that the ratio of 1:2 in classical shorts and longs was purely conventional. Both Dionysius of Halicarnassus and Quintilian indicate clear-

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\*Classical final longs shortened before initial vowels, and elision of final consonants are minor differences that do not affect the main position.



ly that shorts and longs were not all of the same value, and the latter has even qualms about short vowels made long by position. It stands to reason that this ratio must have been nothing but an invention of the metricians. What human being ever measured his ordinary speech so exactly? What Greek off the stage was ever solicitous to give *τοι* twice the length of *ρε*? If, then, we admit a difference in length between our accented and unaccented syllables, the natural rhythms of the classical tongues cannot have been so very different from our own. And when we remember that our language contains a very large amount of syllables with common quantity and of syllables long in their own right, we may call the ancient witnesses to the bar with some confidence that their evidence will not prove irrelevant.

Isocrates may be rapidly passed over. He has only to tell us that prose must not be entirely prose, otherwise it will be dry; nor metrical, as that would be too obvious. It must be intermixed with all rhythms, particularly the Iambic or Trochaic.

Aristotle, after explaining the nature of Rhythm as measured time, and its various ratios, passes in review the forms of it which are open to the prose writer. He considers the Heroic or dactylic as elevated but too remote from ordinary speech. The Iambic, on the other hand, is too near it, and good prose ought to lift us above our ordinary level. The Trochee (—) is too much of a jiggling, tripping Rhythm, and he therefore falls back on the Paeon, the basis of which is  $\frac{3}{2}:1$ . This is the best for prose, because it is the only one that does not lend itself readily to regular verse, and therefore if we hold by it we are safe from being metrical. There are four varieties of the Paeon according as the long syllable comes in the first, second, third or fourth places, but he mentions only the first and the last, the first, — — — —, as being good for the beginning of a sentence, and the last, — — — —, for the end. Finally, the conclusion of the Rhythm should be obvious without the aid of punctuation.

Here we note a description of the quality of various feet, and presumably where these predominate in a sentence their special character will be imparted to it. The Paeonic is a

mean between the dignity of the Dactylic and the commonplaceness of the Iambic. The Trochee is ruled out of court. But certainly we have strongly Trochaic passages in English that are anything but jiggling. Sir Thomas Browne has many of them, as, for example, "and | quietly | rested | *under the* | drums and | tramlings | *of three* | conquests," where all but two feet are trochaic. Nor is the Iambic a mean rhythm. In Jeremy Taylor, for instance, we get an almost pure Iambic run in "and there are | exterm | inat | ing ang | els | that fly | wrapt up | in the curt | ains | of im | mater | ial | ity |," and the movement is not unworthy. Strangest of all is Aristotle's fancy for the pæon. The two types which he prefers do not seem favourite ones with the Greek writers, and those who have counted assure us that it is one of the rarest endings in Cicero. Unfortunately he gives us no example of the use of the Pæon in prose. Had he done so he would have saved us a world of trouble, as we should have known to what extent a single foot ought to be admitted into the general texture of the sentence, how we are to follow the advice that is always given us to mix with other feet, whether it matters what these other feet are, and, if there is any choice, on what principle it is to be made. From the mention of punctuation it would almost seem as though each member or clause of a sentence, as well as the sentence itself, was meant to have the pæonic ending. Then we should greatly like to have had something from him on the length and balance of clauses, as the ear is undoubtedly very sensitive to sentence swing in this connexion. Curiously enough were his rule compulsory for English Prose, we should be in a bad way. For the first type of Pæon we should be mainly limited to quadrisyllables of the type of "*Purgatory*" (the secondary accent on the penult being neglected) seeing that most of our dissyllables have an accent, and would not combine with a trochee to form a pæon. Single words and combinations of the type  $\cup\cup\cup-$  are rarer still owing to our retrahent tendency with the accent. "The Cavalier" would be an example. The great bulk of our Pæons, however, belong to the classes of which he takes no note, single words like *Recessional* and *Solemnizing* being among our commonest types, and the Pæonic rhythm of the second or third variety is

far from uncommon in our Prose. Thus Sir Thomas Browne has a remarkably rich specimen in "(Splendid in ashes and pompous in the grave), solemnizing | nativities | and deaths with equal lustre | and omitting | ceremonies | of bravery in the infamy | of his nature |," where no fewer than seven can be counted. I found the following once, written on an examination table: "Examinations are always formidable, even for the best prepared, since a fool can ask more questions in five minutes | than a wise man | can answer | in a fortnight |." The author is anonymous, but he is to be congratulated on as skillful a use of the Paeon and Amphibrach (— —) as one will readily meet.

Dionysius of Halicarnassus is a man entirely after the heart of the lover of Prose. His enthusiasm is magnificent, his scorn for those who belittle the labour of the stylist is complete and withering. He sees Plato "combing and curling and braiding" the tresses of his dialogues and Demosthenes working as a sculptor works "on the veins and hair and down of his statue." "Was Demosthenes," he hears some one say, "a man so demented as to string metres and rhythms together in his speeches? Did he really try to fit his clauses into moulds and turn his phrases backwards and forwards, with an anxious eye to lengths and quantities and worrying himself with noun and verb inflections and all the accidence? He must have been an idiot to give himself up to all this nonsensical trouble." The reply is solemn. "When a man is consigning himself to the ordeal of all-testing envy and time, there is no labour too great, no trifle too minute for him." He fairly dances with fury over one Hegesias, "the Sophist of Magnesia," who wrote a mean style with too many pyrrhics in it. "The man comes first and last and in the middle among bunglers. By all the gods in heaven, I cannot tell whether it was his insensate gross mind that made him unable to distinguish the noble rhythm from the vile, or if the gods so blighted his understanding that he knew the better and yet chose the worse. I incline to the latter view, for ignorance must sometimes go right, but deliberate wrongheadedness never. He writes like women, or men that have made wrecks of themselves." And he magnifies his office. "These things," he

says, "are like the mysteries ; they may not be published to the many, so that it were reasonable if I invited only those, for whom it is lawful, to attend the rites and bade the profane close their ears."

When he comes to grips with the question of Rhythm, we get a great parade of feet from the Pyrrhie ( ~ ~ ) to the Hypobaccheius ( ~ - - ), but the Paeon does not appear in the list. Each foot is characterized according to its dignity, solemnity, nobility, or the opposite. The Pyrrhic is rightly dismissed with contempt, the Trochee is a soft and ignoble rhythm, the Iambus gets credit only for being "not ignoble," the Spondee has great dignity and solemnity. Of the trisyllables the Tribrach ( ~ ~ ~ ) is low and ignoble and without dignity ; nothing exalted can be made out of it ; the amphibrach ( ~ - ~ ) is feminine and ignoble ; the Cretic receives the same vague commendation as the Iambus ; the remaining five, the Anapaest, Dactyl, Molossus ( - - - ), Baccheius ( - - ~ ), and Hypobaccheius ( ~ - - ), are all commended as being suited for elevated composition. He makes an important distinction between the regular Dactyl and Anapaest, and what he calls the Cyclic variety of these feet—that is to say there are Anapaests and Dactyls which fall short of their full time value, so that they are worth no more than the Iambus and the Trochee respectively—a suggestive point in view of the frequent occurrence of these feet in English blank verse.

The tribrach rarely occurs in English and a sentence in which it should be the prevailing rhythm is hardly conceivable. On the other hand the Anapaest is perhaps the commonest of all in dignified composition. The dactyl is less so, though it is to be observed that a thin partition in reality separates the two rhythms. They pass into one another frequently in Macpherson's *Ossian*—'Green be the | place of thy | rest : || let the sound | of the dist | ant torrent | be heard' | might be scanned also as pure dactylic. There is no doubt however about the ending in 'O thou that rollest in heaven above | round as the | shield of my | fathers.' The Anapaest hardly needs illustration. We have almost a surplusage in 'From all false doctrine, heresy and schism | from hard | ness of heart | and contempt | of thy word | and command | ment.' And in | 'While the sun |

or the light | or the moon | or the stars | be not dark | ened |  
 nor the clouds | return | after | the rain.' Better is Macaulay's  
 'He had at length | gone down | to his grave | in the ful | ness  
 of age | in peace after so many troubles.' But on one point we  
 must join issue with Dionysius. The Amphibrach does not  
 deserve the contempt he pours on it. It is extremely common  
 in English, though it may not often dominate the sentence ;  
 yet it sustains the stately march of the anapaest and is not by  
 any means a foot to be hidden away and apologized for. There  
 are two in the words 'Remember | - - - now thy - - | Creator - - -  
 in the days | of thy youth,' and it makes as fine a close as the  
 trochee from which it differs only by the preceding short. The  
 Spondee and the Cretic (- - -) are infrequent and can hardly be  
 used as prevailing rhythms. The first for the most part arises  
 from two succeeding monosyllables, the second has a jiggling  
 movement. But the Spondee makes a grand and impressive  
 opening, and fine effects are brought off by a succeeding rush of  
 resolved feet as in Macaulay's 'Then came | those days | never  
 to be recalled without a blush,' or in the famous 'Now since |  
 these dead | bones | have already | outlasted | the living ones  
 of Methuselah and in a yard underground | - - - | and their |  
 walls of clay - - -, &c.', where also two cretics will be noted.  
 But illustration of this kind is an endless process. It must  
 suffice to say that the evidence of English Prose for the most  
 part is with Dionysius here.

We are grateful to him for being explicit on another point  
 of importance. It is quite clear that he understands Rhythm  
 as running through the whole sentence and not as confined to  
 its beginning or end. This is clear from three pages of De-  
 mosthenes, Plato and Thucydides, which he actually scans for  
 us, all dignified and elevated, and, as he shows, remarkable  
 for the presence of feet consisting of long syllables and for the  
 total exclusion of the ignoble Pyrrhic, Amphibrach, Trochee,  
 &c. Moreover, he says that if we have to mingle inferior  
 rhythms with the best ones, as generally happens seeing that  
 it is a matter of chance how names are attached to things, we  
 must manage them artistically and cheat *δυσχη* by the  
 charm of our setting." But does this carry us much further  
 than we were? It looks like a return to the ear again as the

final test for author and reader. It seems enough for Dionysius that a syllable should make a recognized foot—of the weighty kind if possible—and if mean feet come up or feet which are antipathetic to one another and whose conjunction would be disastrous to the rhythm, we are to deal with the situation as we best can. But to the perhaps unanswerable question why certain conjunctions of feet are pleasing we get no reply. The nearest approach to it is the fact that in the passage which he scans the *βδωε* or ratios within the separate clauses remain fairly constant. He does not remark this, however, so that it is doubtful if he ever thought the problem worth considering.

After finding so much that is excellent in Dionysius, it is sad to have to make some qualifications. When he goes off on the favorite amusement of critics, the quest for complete metrical lines in the orators, truth compels us to admit that he sometimes plays tricks with the text to make out his point. We had indeed already some suspicion that his enthusiasm was apt to lead him off the straight. One or two words in his examples of scansion are driven into their feet by forcible methods little consistent with their dignity. And when we find him announcing that he will not scan a certain passage as Iambic, which certainly looks like the natural scheme, because the Iambic movement is too quick for a funeral speech, we begin to doubt if all is as it should be. Surely the rhythm must stand or fall by the natural elocution. And alas! the worthy man deals a shrewd blow to our faith that rhythmic analysis is a possible thing, when he finds a disguised Iambic rhythm in a piece which he had previously represented as consisting of the 'noble' Baccheius, Dactyl and Cretic! Let us hope that the chapter is spurious, otherwise we are delivered over to the enemy who insist that prose rhythm is entirely subjective and will not listen to our contention that this subjectivity has its limits.

With Demetrius who wrote a book on style probably some time later than Dionysius we need not long be detained. He plainly continues the Aristotelian tradition which counselled the Paeonic rhythm. The Paeon is suited to the elevated style and safe for prose, because while the long gives dignity the shorts are a safeguard against a too metrical character. The

examples which he quotes from Plato as deriving their beauty from pure rhythm and not from the thought or the diction can hardly be surpassed for excellence, but most unfortunately for the critic there is hardly a Paeon (the types affected by him) to be found in the whole collection.

To the great Hermogenes, long a name to conjure by, it is impossible at this time to do justice. Far more systematic and full than his predecessors, he has none of their sparkle. He is dreary reading, but if we wish to know the rhythm appropriate to any conceivable quality of style, we have only to look up the relevant chapter in his work *περί ἰδεῶν* and there in the last section we shall find what we want. He works through simplicity, majesty, grandeur, asperity, vehemence, brilliance, vigour, amplification, beauty, pungency, and some half dozen others, but broadly speaking the recommendations for simplicity, majesty and asperity cover all the rest. The Iambic or Trochee will do for the first, the second requires more longs than shorts, and prefers the double spondee or one of the  $\frac{3}{2}$  : 1 measures, the third disregards rhythm and in it the cadence need not correspond with the rhythm of the sentence. He is clear that rhythm depends on using the appropriate feet at the beginning of a sentence, making them preponderate through its course and ending with a cadence in harmony with them. On this last point he is very strong. The cadence is of comparatively little importance in the simple style but is all in all for the ornate. Thus majesty demands that the final word be of not less than three syllables with as many longs as possible and the last syllable should be broad and one that swells the mouth in the utterance. But far and away the most important thing in Hermogenes is the distinction between the firm, settled cadence and the suspended or incomplete cadence. We have the first if when the sense is complete there comes a long part of speech ending in a long syllable ; and the second when the sense is incomplete but a pause occurs, and the clause has for the conclusion a short syllable or a penultimate short. The suspended rhythm will not do for the majestic and allied styles, but is a great beauty in those who aim at elegance or simplicity. This is a most useful distinction and enables us to lay the finger on the precise fault of rhythm in many sentences that are felt to be

unsatisfactory. The rhythm of a clause has been too conclusive : we are asked to start out again when we thought we had reached our journey's end.

Such in brief outline is the teaching of Hermogenes on Prose Rhythm. It is all very suggestive and it would be interesting if space allowed to examine his doctrine of the Dominant Rhythm and to analyse Cadences in the light of the practice of English writers. But for the present we must content ourselves with a summary of what we have got up to this point from the Greeks.

(1) All are agreed that Prose must be rhythmical but not metrical.

(2) Most hold that some Rhythms are absolutely better than others: there is no unanimity however on this point.

(3) Some pretend to give the best Rhythms for various kinds of composition.

(4) Most are vague as to the way in which feet are to be 'mixed' in the body of the sentence. Hermogenes alone is fairly explicit here.

Notable blanks are (1) the influence of the Pause, (2) the analysis of the Cadence, (3) the metrology of the Phrase, Clause and Period. For these we have to look to Roman writers who no doubt represent Greek traditions that have perished.

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## THE DOUBLE-WRITTEN HENRY VIII.

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**O**N January 1, 1663-4, Mr. Pepys says that he "went to the Duke's house, the first play that I have been at these six months, according to my last vowe, and here saw the so much cried-up play of 'Henry the Eighth,' which, though I went with resolution to like it, is so simple a thing, made up of a great many patches, that besides the shows and processions in it there is nothing in the world good or well done."

This charming candour may not be the whole truth; for is there not in this play Queen Katharine's speech of defence, not to say Wolsey's farewell (a speech well pawed, Charles Lamb would say), and Buckingham's, and again Queen Katharine's; and is there not the eternal contrast of in the world and of the world presented by the Anne Bullen and Katharine connected scenes; and the strong opening of the play, Wolsey and the nobles—Napoleon and the kings—the great mind of the statesman; then the great heart of the queen; and the storm and stress of the introduction to the tragedy of one or of both.

But that is just where, with Pepys, we are disappointed: the opening leads not to a connected play, but to a thing of shreds and patches: fine work they are, of a stuff that is worth working in; but there they lie, loosely joined. As suggested above, it is speeches we think of in this play—the elegant extractors, it was said, found it a mine—while in other Shakespeare plays, to tear from the context is harder; and something more is gone where we have not the setting.

So even a cursory reading suggests that in *Henry VIII* there is a composite play. Then we know the habit of the times, for dramatists to make plays in common—their "noble practice." And Shakespeare not only in early days worked up old histories, but among his latest work, probably wrote part of *Pericles* and *The Two Noble Kinsmen*.

When we consider *Henry VIII* more curiously, we seem to see, said Mr. Spedding\*, not Hermione restored, but the marriage feast of a second wife. And if it be answered that *The Winter's Tale* was not history, well, we know that the method of a poet historical is not that of an historiographer ; and out of the reign of Henry VIII, as out of the life of Julius Caesar, the dramatist could have chosen and rejected, and have "made a pleasing analysis of all" ; could have led on the play of Wolsey, or of Katharine, or of Henry in public life, or of the triumph of Anne Bullen, but not by taking the course where all interest and admiration is centred in her wronged lady mistress. By my hand 'tish ill done.

The reader wonders, the next time, whether there is not unlikeness in some characters in various scenes—in Queen Katharine, in Wolsey—and in the manner of the writer, in tone, in taste, and also in the verse. He feels on surer ground when he begins to connect a certain form of verse with a certain manner of thought. And, lastly, he finds that Fletcher wrote in verse sounding like what is found in parts of *Henry VIII*, though unlike other plays of Shakespeare. The tone and taste are more like Fletcher ; and so is the final laudation of princes. Of his mind and hand Charles Lamb wrote—in a passage well-known, but useful to bring forward :—"His ideas moved slow ; his versification, though sweet, is tedious, it stops every moment ; he lays line upon line, making up one after the other, adding image to image so deliberately that we can see where they join ; Shakespeare mingles everything, he runs line into line, embarrasses sentences and metaphors ; before one idea has burst its shell another is hatched and clamorous for disclosure." And Emerson keeps the reader on the same lines :—"In *Henry VIII* I think I see plainly the cropping out of the original work, on which his own finer stratum was laid. The first play was written by a superior, thoughtful man, with a vicious ear. I can mark his lines, and know well their cadence. See Wolsey's soliloquy and the following scene with Cromwell, where, instead of the metre of Shakespeare—

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\*His article on *Henry VIII* is in *The Gentleman's Magazine* for August, 1850, not 1851, as Rolfe and others give it.

whose secret is that the thought constructs the tune, so that the reading for the sense will bring out the rhythm—here the lines are constructed on a given tune, and the verse has even a trace of pulpit eloquence. But the play contains through all its length unmistakable traits of Shakespeare's hand, and some passages, as the account of the coronation, are like autographs." It is as well to quote this—for two reasons; one, because some there are who will have nothing but Shakespeare throughout; and the second, because Emerson gives Act iv, scene 1, to Shakespeare, and few, if any, of those who agree with him in general as to a double authorship would do this. All which steadies us on a fair path—that there seem to be two authors in the play, but that we must not be absolute in assigning the exact unmodified parts to each; though Tennyson "thought that he could instinctively distinguish between those parts of 'Henry VIII' which are generally admitted to be spurious and those that are genuine." The parts assigned to Shakespeare are usually Act i, sc. 1, sc. 2; Act ii, sc. 3, sc. 4; Act iii, sc. 2 (to exit of the king); Act v, sc. 1.

In the first Act, as has been said, the first two scenes are of weighty import; and without saying that the succeeding two scenes could not be by Shakespeare, yet they have other characteristics of verse. The form of verse of the first two scenes is that of Shakespeare's later plays, more than ever energetic, varied, strong if not rugged, and as seems to us almost inevitable in the wording; not to say natural. In details, everyone now has had it pointed out, that Shakespeare's later verse has little or no rhyme, has many extra syllables, and fewer stops at the ends of lines, and light words at the ends, urging you forward; most intimately connected as this is, too, with the stress on succeeding words so as to bring out the sense, and creating, where the verse pause is marked, a metre which perhaps it is hard for us to judge, because it has made for us a standard of nobler speech, of more perfect taste, of a greatness almost absolute. And then, too, this greatness is often a hard form of expression; and might perhaps better at times condescend to our weakness by explaining, by using more

words. Of this contracted style of Shakespeare towards the end of his life there are examples here such as :

"The two kings,  
Equal in lustre, were now best, now worst,  
As presence did present them ; him in eye,  
Still him in praise."

"What friend of mine,  
That had to him deriv'd your anger, did I  
Continue in my liking ? Nay, gave notice  
He was from thence discharg'd ?"

"Which of the peers  
Have uncontemn'd gone by him, or at least  
Strangely neglected ?"

"Fairly answer'd :  
A loyal and obedient subject is  
Therein illustrated. The honour of it  
Does pay the act of it ; as, i' th' contrary,  
The foulness is the punishment."

"Most dread liege,  
The ground I stand on is my truth and honesty ;  
If they shall fail, I, with mine enemies,  
Will triumph o'er my person, which I weigh not,  
Being of those virtues vacant."

As to details of the verse take these characteristics of this late Shakespearian form :—

			Unstopped lines.	Light endings.
("Shakespeare's part")	Act I, so. 1, ll	1-50.....	27	8
("Shakespeare's part")	"	so. 2 " .....	27	8
	"	so. 3 " .....	18	0
	"	so. 4 " .....	8	0
			Unstopped lines.	Light endings.
	Act II, so. 1, ll	1-20.....	7	1
	"	so. 2, ll 1-30.....	4	0
("Shakespeare's part")	"	so. 3, ll 1-20.....	9	5
("Shakespeare's part")	"	so. 4, ll 12-32.....	9	2
			Unstopped lines.	Light endings.
	Act III, so. 1, ll	1-20.....	7	1
("Shakespeare's part")	"	so. 2, ll 1-20.....	13	8
	"	so. 3, ll 203-223.....	9	0

On the other hand, take in these same passages the characteristics of the other form of verse :—

			Feminine endings.	Extra Syllable or Mono- syllable.
	Act I, sc. 1, ll 1-50	.....	18	0
	“ sc. 2 “	.....	20	1
(“ Non-Shakespearian part”)	“ sc. 3 “	.....	32	5
(“ Non-Shakespearian part”)	“ sc. 4 “	.....	28	6
<hr/>				
	Act II, sc. 1, ll 1-20....		9	2
(“ Non-Shakespearian part”)	“ sc. 2, ll 1-30....		14	4
	“ sc. 3, ll 1-20....		10	0
	“ sc. 4, ll 12-33....		7	1
(“ Non-Shakespearian part”)	Act III, sc. 1, ll 1-20....		15	3
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	“ sc. 2, ll 1-20....		9	1
(“ Non-Shakespearian part”	“ sc. 2, ll. 203-223..		14	3

These are very suggestive contrasts, to say the least : we leave the suggestions to those who wish to analyze further ; as others have done before them.

But one would wish to call attention specially to the effect on the sense of the Shakespearian light endings and unstopped lines. A pause or suspension must be allowed—sign of sympathy of head and ear. 'Tis monstrous to turn Shakespeare's best verse into prose. This, then, is a notable characteristic of his later plays, as it is of the parts resembling them in this play. And note it in these extracts :

“The devil speed him ! no man's pie is freed  
From his ambitious finger. What had he  
To do in these fierce vanities ?” (i. 1. 52.)

“I read in 's looks  
Matter against me ; and his eye revil'd  
Me, as his abject object ; at this instant  
He bores me with some trick.” (i. 1. 125.)

“For I am sure the Emperor  
Paid ere he promis'd.” (i. 1. 185.)

There, for instance, the emphatic words are “Emperor,” and still more “paid” ere Wolsey promised.

And the same effect in Wolsey to the Queen :

“If he know  
 That I am free of your report, he knows  
 I am not of your wrong : therefore, in *him*  
 It lies to cure me ; and the cure is, to  
 Remove these thoughts from you ; the which before  
*His highness* shall speak in, I do beseech  
 You, gracious madam, to unthink your speaking,  
 And to say so no more.” (ii. 4. 98.)

That is life itself. But it must be read by the forward child Understanding. If you say “to remove these thoughts from you,” you say nothing, and the lofty rhyme is a ruin. Those italics have been put in, according to the sense, to show what the true reading does without any such props. As in the following also :

“Pray you, pass on :  
 I will not tarry ; no, nor even more,  
 Upon this business, my appearance make  
 In *any* of their courts.” (ii. 4. 180.)

Consider, too, Wolsey's next speech—of twelve lines, with ten unstopped.

And

“If you cannot  
 Bar his access to the king, never attempt  
 Anything on him, for he hath a witchcraft  
 Over the king in 's tongue.” (iii. 2. 16.)

That is, *anything* and *witchcraft*.

But Wolsey is beaten and at bay, fighting for life, in verse bold as is his soul :

“I do profess,  
 That for your highness' good I ever labour'd  
 More than mine own ; that am true, and will be,  
 Though all the world should crack their duty to you,  
 And throw it from their soul. Though perils did  
 Abound as thick as thought could make them, and  
 Appear in forms more horrid, yet my duty  
 (As doth a rock against the chiding flood)  
 Should the approach of this wild river break,  
 And stand unshaken yours.” (iii. 2. 190.)

The King goes out, and what a change in matter and in manner. Wolsey continues :

“What should this mean ?  
 What sudden anger's this ? How have I reaped it ?  
 He parted frowning from me, as if ruin  
 Leap'd from his eyes : so looks the chafed lion

Upon the daring huntsman that has gall'd him,  
Then makes him nothing. I must read this paper ;  
I fear, the story of his anger.—'Tis so :  
This paper has undone me !—"Tis th' account  
Of all that world of wealth I have drawn together  
For mine own ends ; indeed, to gain the Popedom,  
And fee my friends in Rome. O negligence,  
Fit for a fool to fall by ! What cross devil  
Made me put this main secret in the packet  
I sent the King ? Is there no way to cure this ?  
No new device to beat this from his brains ?"

(iii. 2. 204.)

And so on. As in coming first to Act iii, scene 2, one has found oneself saying, that here surely is the hand of Shakespeare, and also in coming to Act v, scene 1—the previous scenes having been so unlike him—so here one is distressed at what seems a sudden change from the living voice to a gramophone. Really, of these melodramatic made-up sentences, one may think Johnson's judgment fair—which he applies to everything in the play outside Queen Katherine—that they may be conceived and executed with ease. These words of Wolsey, mind, are the climax, all his nature strung to the highest point, and then the tragic reaction as if it were Hamlet at the play, Lady Macbeth at the banquet, Othello when his occupation is gone. And no one who hears these latter voices can mistake. The contrast is as striking as it is between the copy by the student and the great artist's original; and the knowledge of it is as useful a lesson as is the student's copying day in a gallery. In that latter speech of Wolsey's, not only are there the extra syllables—common in the later Shakespeare style—but there are the tenth syllables with a sort of reiteration, as if each line was more of a separate construction; in that, I think, is the key to the difference, which something of an ear training makes every one hear. Then there are monosyllables as eleventh syllables. And finally, as something connecting expression with a tone of thought, there is a lack of all Shakespearean inevitableness (naturalness in a deep sense), there is the final monotonous close or cadence :

"Nay then, farewell !  
I have touch'd the highest point of all my greatness,  
And, from that full meridian of my glory,

*I haste now to my setting : I shall fall  
Like a bright exhalation in the evening,  
And no man see me more."* (iii. 2. 228.)

And so, in the better known "speech," he reflects,

*"And when he falls, he falls like Lucifer,  
Never to hope again."* (iii. 2. 871.)

To add to Macbeth's "To-morrow, and to-morrow and to-morrow," such a pretty tuneful ending, or yet to Brutus' "Thou seest the world, voluminous, how it goes," would be to tag the verses of a *Paradise Lost*. Even in a Richard II there is no sound like this. Take even Act v, scene 5, of that King's moralizing ; or take Jacques. Of course some of these cadences are beautiful ; as Wolsey's own end :

*"And three nights after this,  
About the hour of eight, which he himself  
Foretold should be his last, full of repentance,  
Continual meditations, tears, and sorrows,  
He gave his honours to the world again,  
His blessed part to heaven, and slept in peace."* (iv. 2. 85.)

But you are sure of the tune, at every event or catastrophe ; as sure as of the last three bars of a Handel chorus, which this cadence resembles, by the way, less than it does those flowing Mendelssohnian melodies, no more characteristic of a Beethoven than are these "Fletcherisms" of a Shakespeare. And the taste of some of them :

*"Like the lily  
That once was mistress of the field and flourish'd  
I'll hang my head and perish."*

Queen Katharine so arranges for herself, the Katharine—or rather not the Katharine—of the appeal by all public and private reasonings to Henry at Blackfriars. Contrast the intense naturalness of the fancy of a Desdemona's likening her gentle self to poor Barbara. And that it should be the Katharine of "Now the Lord help ! They vex me past my patience," that should say so. As well fancy Lear's youngest daughter thus making a little milliner's speech, when she should be about her business ; and that were as likely in Cordelia as that Beatrice should speak passive whimpering-like to Benedick about her cousin Hero in distress.



In fact that little thing of the Queen's is one of the things that Shakspeare could not have written, one makes bold to say. Another is Buckingham's wish—after the stock cadence,

*"And as the long divorce of steel falls on me,  
Make of your prayers one sweet sacrifice,  
And lift my soul to heaven,*

when he says, as to Henry :

*"Ever belov'd and loving may his rule be !  
And when old Time shall lead him to his end  
Goodness and he fill up one monument."*

(ii. 1. 76, 92.)

Surely one can distinguish between Rosalind and a pantomime Columbine ; between Antonio's farewell to Bassanio—Antonio is sentimentalizer enough—and this stuff.

But there is more of it, and from another chieffer person, when Katharine wishes that Henry may

*"Ever flourish*

*When I shall dwell with worms,"*

and, for herself, says :

*"When I am dead, good wench,  
Let me be us'd with honour : strew me over  
With maiden flowers, that all the world may know  
I was a chaste wife to my grave. Embalm me,  
Then lay me forth : although unqueen'd, yet like  
A queen, and daughter to a king, inter me.  
I can no more."* (iv. 2. 125, 167.)\*

And that is the end of Katharine's words. Just before, she would have

*"the musicians play me that sad note  
I nam'd my knell, whilst I sit meditating  
On that celestial harmony I go to."*

It is all very well. But what if you have been taught by Lear's awakening, or by Brutus' awakening and calling to Lucius ?

Another passage evidently unlike what Shakspeare has attuned our minds to is Wolsey's repentance and advice to Cromwell ; as unlike as is, to a Shakspearianized ear, his 'farewell.'

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\* "The unfrequented woods  
Are her delight ; and when she sees a bank  
Spick full of flowers, she with a sigh will tell  
Her servants what a pretty place it were  
To bury lovers in ; and make her maids  
Pluck 'em, and strew her over like a corse."

*A Maid's Tragedy l. 1*

"When I am forgotten, as I shall be,  
And sleep in dull cold marble,"

is the same tone, of course, that there is in the vulgarized Katharine of Acts iii and iv.

The whole thing is so set, and, as Johnson says, "easy" ; like as (with all due respect to him) are the set speeches for and against Wolsey, by the Queen and Griffith. It is just what some people would do, and just what Shakspeare in his greatness would not do, and does not do, and what life does not do.

We are trusting to ear, to instinct, if you like. But I was struck once with what a good lawyer said to me, as to the Bacon-Shakspeare matter, that he would take as the strongest of all arguments against Bacon's authorship the fact that his acknowledged work *sounded* unlike the rhythm and tone of the prose in the plays.

And here is a passage taken at random from *Thierry and Theodoret* (iv. 2). [It is a better illustration than the lines immediately succeeding: that must be allowed.]

Listen to this verse, and also to the verse of Buckingham's last words, or of the later Queen Katharine scenes:

"Having first with a settled countenance  
Look'd up to Heaven, and then upon herself,  
(It being the next best object) and then smiled,  
As if her joy in death to do you service  
Would break forth, in despite of the much sorrow,  
She shewed she had to leave you ; and then taking  
Me by the hand, (this hand, which I must ever  
Love better than I have done, since she touch'd it)  
'Go,' said she, 'to my lord (and to go to him  
Is such a happiness I must not hope for)  
And tell him that he too much prized a trifle  
Made only worthy in his love."

There, in all three, are the reiterated line-endings, the extra syllables, the monosyllables forming such, the parentheses.

With the other ear listen to these passages from two of Shakspeare's latest plays :

"Our revels now are ended. These our actors,  
As I foretold you, were all spirits and  
Are melted into air, into thin air ;

And, like the baseless fabric of this vision,  
 The cloud-capped towers, the gorgeous palaces,  
 The solemn temples, the great globe itself,  
 Yea, all which it inherit, shall dissolve  
 And, like this insubstantial pageant faded,  
 Leave not a rack behind. We are such stuff  
 As dreams are made on, and our little life  
 Is rounded with a sleep."

—(*The Tempest*, iv. 1. 148.)

"I know not: but I am sure 'tis safer to  
 Avoid what's grown than question how 'tis born.  
 If therefore you dare trust my honesty,  
 That lies enclosed in this trunk which you  
 Shall bear along impawn'd, away to-night!  
 Your followers I will whisper to the business,  
 And will by twos and threes at several posterns  
 Clear them o' the city. For myself I'll put  
 My fortunes to your service, which are here  
 By this discovery lost. Be not uncertain:  
 For, by the honour of my parents, I  
 Have utter'd truth."

—(*The Winter's Tale*, i. 2. 482.)

And hear the same verse in Norfolk on the Field of the Cloth of Gold, in Katharine of Aragon's Appeal, in Wolsey's defence (iii. 2. 166), or in Anne Bullen's longing for glistening grief (ii. 3).

It will be seen that there are given to Fletcher (if Fletcher it be) the last of Wolsey in the play, and the last of Queen Katharine. How much of what is fine is thus given up, some will naturally, or thoughtlessly, say. Mr. Sidney Lee, indeed, suggests that Shakespeare wrote Wolsey's "Farewell" in Fletcher's manner; so hard he feels it to give that up. But, apart from the uselessness of following theorists, Fletcher of course is not to be stripped of all his honours. Why should not the author of his plays have written, of Wolsey, his "great child of honour, Cardinal Wolsey," that

"That churchman bears a bounteous mind indeed,  
 A hand as fruitful as the hand that feeds us:  
 His dews fall every where." (i. 8. 55.)

and Griffith's words on the great renaissance churchman (iv. 2. 48 sqq.), and the already quoted account of his death? Of course they are fine verses; and these:

"And, to add greater honours to his age;  
 Than man could give him, he died fearing God."

When Wolsey fears Henry,

"as if ruin  
Leap'd from his eyes,"

—(iii. 2. 205),

you may say Shakespeare put in a touch ; but why must you say it ? Perhaps Fletcher, too, let Wolsey teach,

"The hearts of princes kiss obedience,  
So much they love it ; but to stubborn spirits,  
They swell and grow as terrible as storms,"

—(iii. 1. 162),

and made Norfolk denounce him—it is all Fletcher-like—in that

"He counsels a divorce ; a loss of her,  
That like a jewel has hung twenty years  
About his neck, yet never lost her lustre ;  
Of her that loves him with that excellence  
That angels love good men with ; even of her  
That, when the greatest stroke of fortune falls,  
Will bless the king."

—(ii. 2. 81.)

Finally, if Shakespeare might be pleased with that, he would be proud of Katharine's last message to the husband she somehow always loved and admired :

"Remember me  
In all humility unto his highness ;  
*Say his long trouble now is passing  
Out of this world.*"

—(iv. 2. 162.)

That, certainly, is to compare with

"Absent thee from felicity awhile,  
And in this harsh world draw thy breath in pain,  
To tell my story";

and with

"O, let him pass ! he hates him much  
That would upon the rack of this tough world  
Stretch him out longer."

If it was to those words of the long-injured wife that Mr. Swinburne referred, then his too generous outburst following

would carry with it our judgment. But of this whole scene he declares that if Fletcher wrote it he is the most wronged of poets—"a scene on which the only criticism ever passed, the only commendation ever bestowed, by the verdict of successive centuries, has been that of tears and silence." So Mrs. Jameson, though not Wordsworth, whose general impression was that good taste was set aside. Dr. Johnson indeed was of opinion that this scene "is above any other part of Shakespeare's tragedies, and perhaps above any scene of any other poet, tender and pathetic; without gods or furies, or poisons, or precipices; without the help of romantic circumstances; without improbable sallies of poetical lamentation, and without any throes of tumultuous misery." We keep our feet when we remember that Johnson once placed Congreve's cathedral lines even above all Shakespeare, including this scene, which yet consider once again for its double set sort of judgment on Wolsey, for the vision, and for the sentimentalizing of the queen, as well as for some most noble words; and then also for verse such as

"And, sure, those men are happy that shall have | 'em.  
The last is for my men:—they are the poorest,  
But poverty could never draw 'em from | me;—  
That they may have their wages duly paid | 'em,  
And something over to remember me | by."

One might take these lines as a test: so Spedding takes Buckingham's speech on his entrance, in Act ii, sc. 1. Read an act in each Shakespeare period, and then this.

The contrast has been suggested between the Queen Katharine of the Taxation and Blackfriars' scenes, and her of the scene with Wolsey and Campeius. That strikes one the more, not only when one's instinct tells that something is wrong with the scolding in the last-named scene, as contrasted with the moral indignation and dignified reserve covering the almost overmastering passion of the lady of the first two acts, but also when one's reason discerns that the later scene (iii. 1) of angry complainings contains poorer repetitions of the earlier nobler passionate pleading (ii. 4). They are the voices as we used to hear them, of Titiens, and then only Ilma di Murska.

## ii. 4.

"Heaven witness  
I have been to you a true and humble wife,  
At all times to your will conformable;  
Ever in fear to kindle your dislike,  
Yea, subject to your countenance;  
glad or sorry,  
As I saw it inclin'd."

"My lord, my lord,  
I am a simple woman, much too weak  
To oppose your cunning—etc."

"Sir, I desire you do me right and justice,  
And to bestow your pity on me; for  
I am a most poor woman, and a stranger,  
Born out of your dominions; having here  
No judge indifferent, nor no more assuring  
Of equal friendship and proceeding."

There was no allusion to Anne Bullen by her whom one pictures as Shakespeare's Queen Katharine; as there is by her who goes on

"The more shame for ye ! holy men I thought ye,  
Upon my soul, two reverend cardinal virtues  
But cardinal sins, and hollow hearts, I fear ye " (iii. 1. 109.)—

in matter and manner how far from

"I must tell you,  
You tender more your person's honour than  
Your high profession spiritual; that again

## iii. 1.

"Have I lived thus long—(let me speak myself,  
Since virtue finds no friends)—a wife, a true one?  
A woman (I dare say, without vain-glory)  
Never yet branded with suspicion?  
Have I with all my full affections  
Still met the king? lov'd him next heaven? obey'd him?  
Almost forgot my prayers to content him?  
And am I thus rewarded?"

"But how to make ye suddenly an answer,  
In such a point of weight, so near mine honour,  
(More near my life, I fear), with my weak wit,  
And to such men of gravity and learning,  
In truth I know not."

"Alas, I am a woman, friendless, hopeless.....  
They that my trust must grow to, live not here:  
They are, as all my other comforts, far hence,  
In my own country, lords."

I do refuse you for my judge, and here,  
Before you all, appeal unto the Pope,  
To bring my whole cause 'fore his Holiness,  
And to be judged by him." —(ii. 4. 115.)

These and other passages given will serve to contrast the two manners, and the two forms of verse. It is not to be denied that here and there they may be mingled. And there have been various theories as to how the two supposed writers worked. We may well hesitate about such details ; while feeling sure of our general judgment that a second writer—probably Fletcher—wrote a great part of the play.

W. F. P. STOCKLEY.

## THE EPHEBIC COLLEGE AT ATHENS.

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**F**OR one beginning a study of this subject there is an initial disappointment. It is a natural supposition that a city-state whose military glory was so largely built on the traditions of Marathon and Salamis, and which was so frequently at war not only with its peninsular neighbours but also with nations over-sea, would have a definite system of military training for its youth ; and in fact in the writings of the Periclean generation we find reference to what we may consider the recruit class of the national army. Furthermore, we find that in the Ephebic College, as we know it from the inscriptions, the study of military science plays an important, though not perhaps the most important, part. And this military side is not merely martial display, such as is found in boys' schools of all ages and countries, but includes a topographical acquaintance with the forts and frontiers of Attica, gained by actual camp-life in the country. This would seem to have been an important part of a traditional curriculum retained in the school from a time when it was a matter of the greatest moment that the Athenian boy should know the roads of Attica as he knew the streets of Athens. The disappointment, then, comes from the fact that though one must naturally feel a keen interest in the training of the Athenian youth in the fifth century B.C., and though the evidence seems to point to the existence at that time of the Ephebic College in some form, yet the great writers of that age do not use the word, nor describe the institution ; and the earliest inscription thus far discovered on the subject dates only from the end of the fourth century B.C. Athens had not only played her part against the Persians, and built up her empire, but had struggled through the Peloponnesian war and the confusion which ensued, and had even entered upon the period of Macedonian supremacy, when we first have definite record of the training of her youth for war.



It is only within the last half century, however, that even our present information on this important subject has been obtained. Though some inscriptions were previously known and published, it was not until about 1860 that a satisfactory history of the college could be formulated. About that date the archaeological society of Athens published a long series of inscriptions which had been recently discovered in various parts of the city. These, with a few inscriptions subsequently discovered, are very complete in information and cover altogether a period of about six centuries, from B.C. 334 to about 250 A.D. Most of these inscriptions are extremely fragmentary and are of value chiefly as a help to the elucidation of such problems as the succession of eponymous archons, the history of various Athenian families, etc. But several inscriptions are complete and others nearly so, and it is from these ten or twelve, and from Aristotle's recently discovered work on the Constitution of Athens, that most of our knowledge of the Ephebic College is derived.

Ephebic inscriptions may be divided into four classes: the decrees of the people in honour of the youths and their instructors; the catalogues which give the names of the students for the year; some inscriptions commemorating athletic victories, and a few epitaphs; and busts of the presidents of the college, of which there are thirty-three extant. Of the periods into which has been divided the history of the college as clearly known from these inscriptions the first is the most important, extending as it does from B.C. 334 to about the end of the first century of our era, and displaying the curriculum in apparently its highest and broadest development. During this period equal importance was accorded to public duties, to the military and religious life, and to gymnastics and literary studies. The antiquity of the curriculum is in dispute, but the more recent writers believe that in its origin, and through the sixth and fifth centuries, and most of the fourth century B.C., the Ephebic College was purely a military school, where only military and athletic studies were pursued, and these with an entirely practical purpose; but that, as the need for such training disappeared about the time of Macedonian supremacy, while the former laws still automatically summoned the boys to

the college, it developed at that time into a regular academy, retaining military exercises, and adding liberal studies and religious duties.

The students came from all classes of the state which were liable to military service, namely, the two divisions of the "knights," and the citizens whose name (*Zeugitai*) signified that they were able to keep a team of oxen, and who served as heavy-armed infantry\*. The young men of these classes who were about to reach the age of eighteen years were examined by a committee of their deme, inquiry being made as to their age, their physical condition, and as to whether both their parents were Athenian citizens in good standing. If they failed to satisfy the deme, and appealed the case, the candidates were sent before the public courts, where the judges had power to sell into slavery any candidate convicted of attempting to deceive the deme. The result of this examination having been approved by the Senate, the young man was duly entered upon the rolls of the college at the end of the civil year which followed his arrival at the age of eighteen. Later, however, when attendance was no longer compulsory, the exact age became a matter of indifference, as is proved by the presence on the rolls of the names of brothers in many more instances than could satisfactorily be explained by the assumption that they were twins. A boy thus regularly entered as an Ephebe became *ipso facto* an Athenian citizen, and in this connection an oath was required. It was taken in the first days of Boedromion (Aug.-Sept.), in the temple of Aglauros, on the northern slope of the Acropolis, by the whole body of Ephebi under arms. The Senate was probably present, and public sacrifices were held. The form of oath (which has been preserved by three writers) is apparently ancient, and perhaps dates from the earliest times. It runs as follows:

"I will not dishonour these sacred arms ; I will not abandon my comrade in battle ; I will fight for my gods and my home, alone or with my comrades. I will not leave my country less, but I will leave it larger and stronger than when I received it. I will obey the orders ,

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\*By the end of the second century B.C. strangers were admitted to the college, and attendance ceased to be compulsory for Athenians.

given me by the wisdom of the rulers; I will be submissive to the laws now in force, and to those made in future by agreement of the people. If anyone desires to overturn or disobey these laws, I will not suffer it, but I will fight for them, alone or in company. I will revere the worship of my ancestors. I call to witness Aglauros, Enyalios, Ares, Zeus, Thallo, Auxo, Hegemone."

The young men also prayed for the safety of the Senate, the People, the children and women of the state, and its friends and allies. At the conclusion of the ceremony the young man of eighteen was possessed of almost all the rights and liable to almost all the duties of a full citizen. He was known by his full citizen name, *i.e.*, the name of his father and that of his deme were added to his own. He had, if his father were dead, the full administration of his patrimony, and must undertake the care and support of his mother. He must legally provide for an heiress in his family, which might involve marriage. He must attend the Assembly of the people, and though the ephebi rarely voted and still more rarely spoke there, both seem to have been forbidden only by a custom which was occasionally overstepped. He had the general duties of a citizen, except that he did not have the burden of the triarchy, *i.e.*, the fitting out of a warship, and his military service was, as a rule, limited to home defence. Moreover, he could go to law only in three specific cases,—in a matter concerning his inheritance, in the disposition of an heiress, or in a dispute concerning an inherited religious obligation.

The principal duties of members of the Ephebic College were as follows: They took an important and prescribed part in the state sacrifices and religious festivals, some of which were entirely conducted by the students; they had a prescribed course of physical and literary education; they took part, either as full citizens or as guards, in the assemblies of the people; they had certain duties as "guards of honour" for distinguished foreigners, especially Romans; and finally they were a police for the country, who utilized the period of this service to become familiar with the topography of the country and to learn military tactics. During the time when the Ephebic course lasted two years, the students were publicly

inspected by Senate and People at the end of their first year, when each was presented by the state with his equipment for the field, viz., a spear, a shield, a dark cloak, and a broad-brimmed felt hat.

The officials of the College consisted of a supervisor, or president, who did no teaching ; and a number of instructors. The *Cosmetes* (κοσμητής), or President, was a state magistrate, who was elected for one year, and who was responsible for the conduct, finances, and general tone of the institution while it was under his charge. As he was the only magistrate directly connected with the college, and as the position of *Cosmetes* seems to have been an honourable one from a political point of view, some believe that it formed part of a sort of *cursus honorum* leading to the offices of General and Archon. The *Cosmetes* was supposed to attend the students in all their journeys, whether for military or for sacrificial purposes, in their games, and in their literary and gymnastic studies, and in every way to provide for the moral and material welfare of the institution. "He was charged to concern himself with the prosperity of the college in general, but the duties to which his attention was especially directed were those of moral guidance. He must maintain harmony among the young men, must care for their character, their development, their devotion to the state ; he must arouse in them the best feelings, must inspire them with all the noble passions that the city expected its good citizens to have. In short, he represented in the college the very spirit of the nation." The *Cosmetes* received no salary, but, on the contrary, frequently contributed to the funds of the college, which was supported by grants from the civic treasury, and, later, from the imperial treasury, and by subscriptions from officials and the students themselves.

The date of the institution of the office of *Cosmetes* is in dispute. It has been assigned by various writers to the time of the Roman empire, to the beginning of the third century B.C., and to the beginning of the fourth century B.C. A few inscriptions\* recently discovered, however, make it clear that the first *Cosmetes* was elected about 306 B.C. These inscrip-

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\*Corpus Inscriptionum Atticarum, IV, 2, 563 b ; IV, 2, 574 d ; II, 581 ; Koehler, Mitth. des deutsch. Arch. Instit. in Athen, IV, 324 ; Mylonas, Bull. de Corr. Hell. XII, p. 148, No. 12.

tions show that the former guardians of the morals and discipline of the Ephebi were called *sophronists* (*σωφρονισταί*) and were elected annually, one from each of the ten (or, after the year 306, twelve) tribes. Each had charge of the youths from his own tribe, and in relation to them exercised practically the same functions as the *Cosmetes* afterwards exercised in relation to the whole college. In the group of inscriptions mentioned, which are dated from 334 to 303 B.C., we find first the *sophronists* alone, then a *Cosmetes* mentioned with them, and finally the *sophronists* disappear, until the office was revived in imperial times as a state-inspectorship of the college.

The chief of the instructors in the college was the *Paidotribe* (*παιδοτρίβης*), who served, not for a year only, but for a number of years, sometimes for life. During the first and second centuries of our era there were two, Ariston and Abascantos, whose combined tenure of this office extended over nearly a century. Such was the affection of the students and the state for the second of these veteran instructors that in addition to numerous honours conferred on him in his lifetime, and on his memory after his death, they made his son *Cosmetes*. The duty of the *Paidotribe* was to supervise the athletic instruction. He did not teach any special branch, but was concerned with the harmonious development of the physical powers of the students, and with their health. He had four subordinates to teach the various branches of the military art : a fencing master, and instructors in the art of throwing the javelin, in archery, and in the use of the siege-engines. Of these the first alone, the *Hoplomachos* (*ὀπλομάχος*), needs special mention, for he was much more than a fencing-master. He taught his pupils the use of military equipment of all kinds (except the special weapons mentioned above); and they probably learned from him the art of riding for purposes of war. Moreover as the college, at least in theory, graduated the future generals and admirals of the state, it is probable that on this officer devolved the duty of teaching something of the military art in general, strategy, tactics, the evolutions of a fleet, etc. A man of intelligence in this office would undoubtedly be able to attain a position of considerable importance in the college and in the state.

The course of study at the college may be divided into physical, mental, and religious. The physical exercises were carried on in gymnasiums, as well as in the field and on the sea. The students were instructed in running, leaping, and the usual exercises of that sort ; in the management of arms, riding, feat of arms on horseback, torch-bearing races on foot and mounted ; and in rowing and racing at sea. Prizes were frequently presented in public to those who excelled in these pursuits. The literary studies of the Ephebi were chiefly carried on by attendance at the lectures of various instructors in Athens. With perfect liberality they visited all schools of philosophy ; they read the works of the great Greek writers and kept up at their own expense a good library ; and they studied also geometry, rhetoric, and music. Until late, no masters of any of these subjects were regular instructors at the college. The religious duties of the students were considered of the greatest importance, and as these duties were closely bound up with the most ancient rites and mysteries, it was at this point that the college—when military exercises had become a merely academic performance—came most closely into touch with the life of the state. “The time that the college did not give to gymnastics, to literature, and to military exercises, it consecrated to the worship of the gods. This was still to serve the state, since piety was a part of a citizen's duty, and every Athenian, by order of law, was a religious man.” The Ephebi began their year with a solemn act of worship ; and each succeeding month they celebrated a large number of *fêtes*. In fact it is probable that they assisted at all religious festivals, worshipped at all shrines both in city and country, and honoured all the ancestral heroes. The festivals most important for the college, as for the state, were the Eleusinian and Dionysiac celebrations. In each case the students took part in all the processions, sacrifices, libations, chanting of paeons, accompanying statues and sacred vessels from shrine to shrine, etc. In regard to festivals in commemoration of great actions of their real or legendary ancestors, there are a number mentioned in the inscriptions as being performed by the Ephebi. For example, the field of Marathon and its buried warriors was honoured ; the trophy in honour of the victory of Salamis was

visited, and in the same connection the temple of Artemis on Munychia. Also a procession, a torch-bearing race, and a series of naval races were held by the Athenian Ephebi in connection with the Salaminian honours to Ajax, when the Athenian youth and the Salaminian contended for prizes. Every five years the victory of Plataea was celebrated. Moreover the students took a prominent part in the Epitaphia, or festival in honour of all who had died for their country. Here they not only listened with their elders to the funeral oration of the chosen citizen, and deposited their offerings, but marched in solemn procession before Senate and People, and held games, races under arms, and torch-bearing races in competition with the alumni of the college, etc. They also celebrated in special manner a large number of other religious festivals, and in later times they honoured the feasts of the Roman emperors.

The college, in its internal administration, was intended to represent the state. The students were therefore called "citizens," and had a number of dignitaries among themselves who bore the same names as the principal city magistrates and officials—archon, general, herald, etc. They were also divided into groups of two or more in a manner not clearly understood, the idea of comradeship being considered of great importance in the Greek army.

The decrees relating to the Ephebi were of two kinds: formal decrees passed each year, and particular decrees called for by special circumstances. The formal decrees are of the greatest value for historical purposes. There were two in each year. The first, passed early in the official year, gave an account of the doings of the Ephebi during the preceding year, recounting their actions in detail; and concluded with the marks of the people's esteem, namely, "praise," a crown of gold and front seats in the theatre. The second formal decree dealt with the conduct of the *cosmetes*, and the other officials and instructors. It was passed from one to six months after the first, but as a rule could not be voted until the *cosmetes* had been legally discharged from office by the board of auditors. The two inscriptions were engraved on one monument, which was placed in the *Agora*, with sometimes another copy else-

where. I will conclude with a translation of a typical inscription of this kind, dated 118 B.C.\*

(After the usual introduction giving the names of officials and of the mover of the motion, as in all Athenian decrees, it continues) :—

“Whereas the Ephebi in the archonship of Herakleitos, who followed the second term of Argeios, performed their inaugural sacrifices in the Prytaneion, at the common altar of the people, and obtained favourable omens therein, in company with their *cosmetes*, and the priest of the People and the Graces, and the Soothsayers, and made their procession in honour of Artemis Agrotera. They also performed the escorting of the sacred vessels under arms, and again escorted back the same, and Iacchos (Dionysus) likewise ; and at the Mysteries in Eleusis they raised the oxen for the sacrifice, and themselves sacrificed in the sacred precincts of the temple. They also accomplished their races and other athletic contests, and at the sacrifices they raised the oxen in fitting manner, and held all the torch-bearing races, and performed their processions. They also escorted the Romans, allies of the (Athenian) people, and they joined in leading a bull to Dionysus in the Peiraeus, and in the procession at the Dionysiac festival they led another magnificent bull, which they sacrificed, and in all these observances they obtained favourable omens. They also carefully exercised in arms, and gave an exhibition at the Theseia and the Epitaphia, and held a procession in honour of Artemis at Munychia. They also went out upon garrison duty and sacrificed at the Diogeneia. Moreover they sailed to Salamis to attend the festival of Ajax, and they sacrificed to Ajax, sailing out and returning with good discipline; for which they were honoured by the people of Salamis with a decree. Also at the festival of the tillage-time they raised the oxen in Eleusis, performing their religious duties in a becoming manner, and dedicated at the Mysteries a libation-bowl to Demeter and Koré. They also performed all the other befitting sacrifices with their *cosmetes* and their instructors, making offering to the gods and to the patron divinities of the people, and obtaining favourable omens

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\* C. I. A. II. 468.



in all. They were zealous for the best in this their early manhood, exercising unceasingly in the gymnasiums under conduct of their *cosmetes* and instructors, and attending the lectures of the philosophers with all good discipline. Moreover they were constant attendants under arms at all the assemblies, both in the city and in the Peiraeus, and were present with good discipline at all the lectures, being in all things strictly obedient to their *cosmetes* and their instructors through the whole year. Furthermore, they dedicated a libation-bowl to the Mother of the Gods, at a price of seventy drachmae sterling, according to the decree moved by Dioskourides, and they presented one hundred books to the library of the Ptolemaion according to the decree moved by Metrophanes. And finally they performed their review before the Senate.

"In order, therefore, that the Senate and People may show that they honour those who obey the laws and decrees from an early age, be it resolved by the Senate that the chairman who may be appointed for the next assembly shall have the duty of announcing to the people the decree of the Senate, namely, that it is the will of the Senate to praise the Ephebi; and to crown them with a golden crown according to law, on account of their virtue, and their piety towards the gods, and their patriotism; and to proclaim this crown at the plays in the theatre of Dionysus, and at the Panathenaic and Eleusinian athletic contests, such proclamation to be provided for by the generals and army-treasurer; and to praise also their instructors, the *paidotribe* —\*, and the *akontistes* Aristophanes, and and the *hoplomachus*, T—\*, and to crown each of them with a crown of olive. The secretary of the committee of the Senate shall engrave this decree on a stone monument, and place it in the *Agora*, the expense to be borne by the state."

The supplementary decree in honour of the *cosmetes* is in this case missing. The terms used in such decrees, however, are very similar to those in the decrees in honour of the Ephebi.

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\*Name erased from the stone.

## THE MOSELY EDUCATIONAL COMMISSION.

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**A** SOMEWHAT indefinite slender thread of romance leads us back to the origin of the Mosely Commissions as emanations from Mr. A. Mosely's experiences before and during the South African War ; at least Mr. Mosely himself tells us, in his prefatorial summary, that it was the striking success that attended the consolidating operations in the territories, near and beyond Cape Colony, in his time, that first led his attention in any marked way to the United States as a land which might serviceably be made to provide, for his somewhat slow-to-move fellow-countrymen, a lesson of progressiveness, if only some direct reliable method were adopted in drawing up the notes for such a lesson. As Mr. Mosely says : " I had been engaged for many years in mining operations in Kimberley, which, in common with the work of the diamond diggers, had proved unremunerative, when Gardner Williams, the Californian engineer, arrived in South Africa, and took over the management of the De Beers Company. Gardner Williams in turn imported the late Louis Seymour. To the latter, by the way, the British nation owes a debt of gratitude for his engineering work in Natal in the early stages of the Boer War. By repairing bridges as fast as they were destroyed by the enemy, and so keeping open the lines of communication, without which operations in Natal would have been impossible, he and his volunteer company did yeoman service. Gardner Williams and Louis Seymour were followed by many other American engineers, some of whom were graduates of Harvard University. Under the guidance of these able men the development of South Africa was started ; and, in my opinion, her mining centres largely owe their primary success and subsequent prosperity to their affairs."

With the effects before him of the skill and courage of these pioneers of modern engineering progress,—born and brought up, as they had been, in the United States,—Mr. Mosely eventually made up his mind to undertake an extended tour of observation

through that country. His first visit extended over a period of several months ; and so impressed was he with the industrial and educational conditions of the communities through which he passed that he came to the conclusion " that a cuntry teeming with such natural resources must, in the hands of capable men, play an important part in the future of the world, and was bound to exercise a far from negligible influence upon the industries of the United Kingdom."

Mr. Mosely, it may here be said, makes no profession of being either a philosopher or an educationist. Yet from what he saw during his visit among his transatlantic Anglo-Saxon neighbours, there came to him as his own the engrossing task of the active, enthusiastic philanthropist. Repeating to himself in the plainest of phrase, " How is it that the United States can afford to pay half-a-dollar in wages where we pay a shilling, and yet compete with us in the markets of the world?" he soon found himself engaged in organizing his Industrial Commission, comprising over twenty prominent commercial and manufacturing experts, to provide some answer to the query ; and, as a corollary to their report, further arranged for a report from an Educational Commission, that should trace the effects which the school and college methods of instruction in vogue in the United States were having upon the industrial advancement of that country.

In organizing his Educational Commission Mr. Mosely met with the most encouraging co-operation from the educational authorities on both sides of the Atlantic. His enterprise being warmly sympathized with by Lord Reay, Chairman of the London School Board ; the Duke of Devonshire, President of the British Board of Education : the Right Hon. Arthur Balfour, Premier of Great Britain ; the Registrar of the University of London ; and many other distinguished Englishmen, he was soon able to enroll twenty-six members on his Commission who were willing to undertake a visit to the United States to examine every feature of the educational system of that country. On this side of the Atlantic every hospitality and facility of investigation were extended to the Commission, its warmest sponsors being President Murray Butler of Columbia University, New York ; Dr. Maxwell, Chief Superintendent of the City

Schools of New York; and Dr. Harris, Commissioner of Education, Washington. Reception committees were on hand to welcome the distinguished visitors at every point in their itinerary. Before dividing up into groups of investigation the whole Commission proceeded to Washington where a memorable reception was given to them at the White House, and where President Roosevelt addressed them in his usual, impressively pertinent way,—instinctively revealing the verdict which the Commission could hardly miss bringing in, namely, that while education could not make a country, the nation that neglected to educate its people would be assuredly undone in the long run.

It is impossible, in a limited magazine article to follow the Commission, as its members and groups of members spread themselves all over the country, visiting prominent institutions, and conversing with prominent educationists, school principals and citizens of all grades. The twenty-six reports of these gentlemen form separate studies in themselves; containing, as they do, evidence anything but corroborative of popular opinion,—nay, with statements in one report impartially at variance with statements in another report, and having something of the weakness of a one-sided hearsay about not a few of them. These independent reports, candid as they nearly all are, cannot but be of the greatest value to the educational investigator, though the task of co-ordination is sure to be a severe one to the general public, as it evidently has been to the Commission sitting in council, as well as to Mr. Mosely.

It is to be hoped no injustice will be done to Mr. Mosely, when it is said that some of his pre-judgments were to some extent false ones, when he surmised that the evidence of his Commission was likely to corroborate the theoretic specializing opinions he held concerning the success of the graduates of American Universities, who distinguished themselves in South Africa and whose engineering skill he, too hastily perhaps, took as an exponent of what education was doing for the people of the United States. There is no hiding of the fact that Mr. Mosely's instinctive test of education has its origin in his estimate of what *it does* for a people materially, rather than from what *it is* as a mental or spiritual asset in the individual. It is true that two items of his instructions to his Commission were

that they should find out what degree of the development of individuality was to be observed in the public schools and what were the social and intellectual effects of the wide distribution of secondary education. But when he makes more of the Dodge Chart than he ought to do, and further emphasizes the adventitious value of education, from the earning power of some of its effects, in so many dollars and cents, one can readily understand that there was more of a primary purpose in his asking the members of the Commission to take note of the especial instruction given in business methods and applied science. Indeed it is safe to say that the main purpose of the Commission, as far as Mr. Mosely's instructions had any leading for the members, was to report on the present state of opinion as to the value of professional and technical instruction, designed with special reference to the task of making a living in the business world.

Mr. Mosely's philanthropy is of the nature of the philanthropy of Cecil Rhodes, possibly of Andrew Carnegie. And there is no likelihood of exception being taken to it, save on account of its exclusiveness. It is no ignoble ambition which education tends to foster in the individual of exceptional parts, to fulfil the strenuous life by acquiring the experience and wealth "to create industries and fields of industry to occupy the masses and afford them remunerative employment." And yet Theodore Roosevelt is none the less correct, taking his words to the Commission in their widest signification, when he claims with unmistakable emphasis that neglect of the education that seeks to educate every element of the true manhood in citizenship, and not merely the bread-earning faculties, is sure to bring a nation to decay in the long run. It would be unworthy any sane man, to ignore the painful lessons of the history of the national life in all times. The over-enhancing of the bread-earning faculties, not to apeak of all incidental wealth pampering, leads inevitably to the educational neglect of which the keen visioned Roosevelt has warned us ; and it is re-assuring to note how many of the Mosely Commissioners have taken their cue from him, being diffident neither in presenting evidence nor in advancing arguments in favour of those broader views of education which have a well grounded scientific warrant and universal sanction among assured educationists.

How far Mr. Mosely himself is inclined to justify the limiting of the calculable effects of education to the bread-and-butter equation, may be suspected from the following quotations from his summary, which, by the way, is, inadvertently no doubt, dotted over with many false notes :

"I have heard it urged," he says, "that there is no aristocracy in America but that of money. Once more I beg to differ. The contention may on the surface appear to be true, but if the matter is probed a little deeper, it will be found that the aristocracy of money in the United States is the aristocracy of brains."

If Mr. Thomas W. Lawson, distinguished promoter and restive money-marketer of these times, sets forth in his *Frenzied Finance* the truth of the effects, produced by this aristocracy of money which is said to be the aristocracy of brains, not only upon all ethical relations and social details, but on industrial developments as well, Mr. Mosely and those of his thinking will have to revise their methods of testing education in its industrial as well as in its racial effects. There is no reason to doubt a word of what Mr. Lawson has been telling us in his startling confessions. And in the light of his revelations, the necessity for a revision of his utilitarianism presses all the more on Mr. Mosely, especially when this second quotation is read from his summary :

"Looking into the future of our own country, (namely, Great Britain) I feel bound to record my belief that the regime of the past, however successful it may have been, is obsolete. Honesty, doggedness, pluck, and many other good qualities possessed by Britons, though valuable in themselves, are useless to-day, unless accompanied by practical up-to-date scientific knowledge, and such knowledge only becomes possible with an enlarged and enlightened system of education, such as the United States possesses. I feel that if we are to hold our own as the dominant nation—or as one of the dominant nations—of the world, we cannot afford to lag behind in educational matters as we are doing."

The short-coming of such pleading is surely transparent enough. Britain certainly ought to have the very best of everything in her efforts to sustain her position as the Empire *par*

*excellence* of the world. But has President Roosevelt not told Mr. Mosely that education cannot make a nation, even if it be a fuller education than we have, or a lop-sided one on the industrial side or on any other side. The deficiencies of the national life in the United States are, to say the least of them, as apparent as the deficiencies of the national life of Great Britain. The prestige of these countries has not changed places, outside of trade fluctuations. The average American is no more of a man than the average Briton, nor vice versa, however the exports or imports of their respective countries may seem to vary. The permanent national life does not vary with every swing of the balance of trade. A man's life consisteth not in the abundance of his possessions, nor a nation's either. And if Mr. Mosely's Educational Commission was expected to have no higher function than one of differentiation of school systems as exponents of national industrial aggrandisement, with the courage of imitation only on one side, the cause of education *per se* is not likely to gain very much from its findings, however much it may gain from the record of its investigations.

Even on the showing of Mr. Mosely's own summary, there are deficiencies and excellences in the respective school systems and pedagogical methods of the two countries whose easy detection might induce the impulse of imitation or elimination on the part of the educational novice, who fails to take into consideration all the influencing outlines of the environment, or to justify effects because the necessities for such are hidden from view. There are too many female teachers in the United States, Mr. Mosely thinks ; but are there not also too many pupil teachers in the English schools ? There is more cultivation of the musical talents of children in Britain than in the United States, at least so Mr. Mosely has discovered ; but there is better reading in the latter country. The schoolmasters in the United States are chosen purely for their academic attainments and power of imparting instruction, again says the summary, while the absolute devotion to sports, to the exclusion of almost all other interests, which of late years has crept into all classes of English schools, forms, as Mr. Mosely thinks with ill concealed exaggeration, the weakest point in the educational system

of the old country. The pupils in America are more on an equality with their teachers than they are in Britain, he says,—their individuality and reasoning powers being developed to their fullest extent, and as a consequence their minds being made up at a comparatively early age to carve out a career for themselves. What it is that should be made to give way to this in Great Britain, Mr. Mosely does not say. But he does not fail to emphasize his utilitarianism, when he further tells us in this connection that the teachers of the United States “appear to be able to accomplish a sifting process whereby a scholar’s strongest points are singled out and developed ; for it is being realised in the United States that all-round knowledge, though useful in itself, must in the present day of fierce competition be supplemented by the work of specialism ; and the bulk of American boys, on leaving school, start out with the fixed determination to take up a certain line of work, having previously fitted themselves for that occupation. ”

There is therefore, in reading between the lines of these findings set forth in Mr. Mosely’s own summary, no getting away from what was the prevision of the organizer of the Educational Commission that its work and report would be but a sequel to the work and report of his Industrial Commission, having for its final object the answering of the pressing query : “ How is it that the United States can afford to pay half-a-dollar in wages where Britain pays a shilling, and yet compete with us in the markets of the world ? ” In other words, Mr. Mosely has somewhat unwisely been making himself believe that in the differentiation of the American and British systems of education he was likely to find some solution of the trade problem,—some warrant for forcing the marvellous activity of the youngest nation of the world upon the conservative maturer action of the mother-nation of us all,—some prospect of putting a young head on old shoulders by juggling with cause and effect in the simple-mindedness of his well-meaning philanthropy. Far be it from me to belittle Mr. Mosely’s efforts in bringing together his phalanx of experts, who have prepared for us all such suggestive evidences of their erudition, educational acumen, and fruitful industry, as any one may detect by reading their twenty-six reports given *in extenso*. But his own estimate of their labours, limited,



as he possibly thought they might be, to the ascertaining how far education in the United States is responsible for its industrial progress and instant prosperity, cannot fail to prejudice their findings, since his educational horizon is not much wider, though more personally disinterested, than that of the writer of the following advertisement which I clipped from the outer leaves of an illustrated magazine the other day :

“ Let me train your boy for business. You are to a large extent responsible for his future. He is dependent upon you for a mental equipment that will enable him to win out when he enters business. That equipment must include the ability to calculate. ‘The public school system is enough to drive a man wild,’ said a prominent business man to me the other day. ‘My boy is twelve years old, nearly as tall as I am ; and, what do you think, he’s learning to sew. That same boy can do all kinds of fearful stunts with equilateral triangles and cube roots, (*sic*) but he can’t add a column of figures to save his neck. He’s busy now writing a critical essay on Shylock, and if I were to ask him what is the sum of seven and four he would most likely say ten.’ ”

And as if such exaggeration was not sufficient to warn parents, the advertising dominie proceeds to make his bait more alluring, as he no doubt thinks, in these terms :

“ When your boy leaves school for business his employer won’t give a rap whether he can recite Homer’s Iliad or tell in what year some Roman emperor reigned. But he will want him to be able to add up a bill of goods correctly, or be able to figure out the interest on a sixty-day note. This is the kind of knowledge on which his salary will depend (v. the Dodge Chart as commented upon by Mr. Mosely, in his summary, and read further from the calculating dominie’s circular) :

“ One of our courses is rapid calculation. We teach a method by which any one, young or old, can handle figures with an almost intuitive accuracy. We can teach your boy to read figures as he now reads words. We can show him how to add, subtract, multiply, or divide figures in his head (*sic*). The ability to calculate will make your boy quick to grasp the situation, quick to see results. Quick decisions lead to fortunes; sluggish and indifferent methods invite bankruptcy. Last year

seventy-seven per cent of business men were reported to have failed owing to incompetency. That a large proportion of these failed through lack of ability to calculate there is no doubt, because the curriculum of all our schools, common and academic, is not adapted to the needs of the average boy, who, if he succeeds at all, must do so along practical lines. The e is advancement for your boy from the start, if he is allowed to pass through our hands. The knowledge he will acquire from us will be worth more to him than anything he can learn in school or college in five years,"

*Ab minore disce majorem.* Is all education to be reformed into a material *quid pro quo*?

The Joint Report, from the Commission acting as a body, is a more re-assuring document, brief as it is, than Mr. Mosely's summary, which, perhaps for the scientific credit of the Commission, should never have been published. The individual reports, as has already been said, are of the most valuable character. As it is the intention of the writer to make some co-ordination of the reports along the lines of our Canadian educational necessities in a subsequent article for the *Quarterly*, it may be sufficient to close this article with the Joint Report of the Commissioners given in full. It is as follows :

"The members of the Mosely Educational Commission are deeply impressed by the evidence they have gathered in the United States of the absolute belief in the value of education both to the community at large and to agriculture, commerce, manufacturers and the service of the State. Although, in the past, the belief in education has been the effect rather than the cause of American prosperity, during the last quarter of a century education has had a powerful and far-reaching influence ; and it cannot be doubted that, in the future, it will become more and more the cause of industrial and commercial progress and of national well-being. They are satisfied that, in years to come, in competing with American commerce we shall be called upon to face trained men, gifted with both enterprise and knowledge. They desire to impress on the British public the absolute need of immediate preparation on our part to meet such competition.

"They have also been impressed with the spirit which animates both teachers and pupils, and by the manner in which the two classes co-operate in the schools and colleges. Willingness, if not an overwhelming desire, to learn seems to characterise the scholars; and teachers seem to be possessed of but one wish—that of helping their pupils in every possible way. The absence of class prejudices and of any 'religious difficulty' serves most materially to facilitate the work of the schools.

"The closest connection is being established between theory and practice, the practical bent of the men of letters and science and the breadth of their outlook being very remarkable. The services of experts in various branches of knowledge are, therefore, held in high esteem and are in constant demand.

"The important part which manual training is beginning to assume in the schools struck them very forcibly. Such work appears to be in many ways of high value as an educational discipline, especially in developing handiness and alertness, and in familiarising the scholars with constructive processes.

"They have been much impressed by the liberality displayed not only by the public but also by private donors on behalf of education, as evidenced by the wealth of provision in the form of buildings and equipment which is everywhere made. On the other hand, they observe that the remuneration of teachers is by no means always on a satisfactory basis and they have also been led to view somewhat with alarm the growing preponderance of women teachers.

"Lastly, they would draw attention to the extent to which the work of education is organised and its various grades co-ordinated, whereby harmonious working is secured and overlapping avoided. The need of effecting such organisation in this country, which was before apparent, now seems to them imperative, in view of the experience they have gained in the United States.

"Although individual members of the Commission have expressed their thanks both to Mr. Mosely and to all those who have assisted them in the United States, they wish in their collective capacity to record their high appreciation of the value of the opportunity which Mr. Mosely gave them to gain experience likely to be of signal value in carrying on

their work at home. They also desire to acknowledge with gratitude the courtesy with which they were invariably received, and to express their deep sense of the obligation under which they have been placed by all who assisted them in their inquiries\*."

J. M. HARPER.

Quebec.

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\*Professor Ayrton does not agree with the reference to the preponderance of women teachers and Mr. Blair regards the subject as an open question.

## SHOULD THERE BE A FACULTY OF EDUCATION IN THE UNIVERSITY?

### I.

**W**HAT is wanted amongst us, if education is to be carried on with the maximum of efficiency and if teaching is ever to be a profession, and not a mere perch or stepping-stone, is a union under the auspices of the university of each class of school. At present the schools are either scattered in different places or under separate managements in the same place. The candidates for Third Class certificates in Ontario are distributed in sixty model schools, and for Second and First Class in three normal schools, while the candidates for High School specialists are sent to the Ontario Normal College. There cannot be any thorough co-operation between these grades of professional schools, as matters now stand, because they are not only in different localities, but depend on another class of schools for the non-professional standing of the candidates. The model and normal schools depend on the public and high schools, and the normal college largely on the university. Hence there is a lateral as well as a vertical cleavage represented by the following table :

NON-PROFESSIONAL.	PROFESSIONAL.
University High Schools	Ontario Normal College
High School	Normal School Model School
High School Public School	Model School

the main separations being on the right or professional side of the diagram, and represented by the double lines : that is to say, the professional schools are divided from the non-profes-

sional, and also from one another,—a situation disadvantageous to the status of teaching as a profession, to efficiency and economy of administration, and to the cause of education. The only real organization to be found is that between public schools, high schools and universities, with a distinct and gratifying tendency to strengthen the bond between public schools and high schools, and a tendency distinct and unpropitious to separate these schools from the university.

It can be shown, I think, that the existing arrangement, or something like it, was in the past justified by circumstances. Schools for the lowest grade of certificate had to be brought to the doors of the candidates, who often had not the means to pay for an education away from home. But no one will argue that the best results can be obtained from sixty small model schools, some of them a trifling adjunct to a public school, and few will deny that some constructive modification is now desirable. It is therefore wise and timely to raise the whole question, so that whatever change is made in the system may be in the right direction and bring with it the maximum of advantage. It is for this reason that I here propose a more extensive co-operation amongst our educational forces than now obtains.

Whatever may be urged against the methods of work and courses of study in our universities, it ought not to be lost sight of that the university is the summit of the system. And unlike a summit of a mountain, which is supported by its base, the summit of an educational system is itself the base. It is the base in more ways than one. In the first place it may be said to prepare the teachers for the high schools. After four years' attendance at a university, where Honours standing must be secured in the selected subjects, one session's attendance at the Ontario Normal College, followed by an examination in methods, qualifies the candidate to teach in the high school. It is clear that the onus of preparation is on the shoulders of the university, while the onus of rejecting the inapt to teach is on the Ontario Normal College. In that sense the university is the base of the system. And as the high schools under the present system equip to a considerable degree the teachers of the public schools, the university is indirectly responsible for that also.

But the university is in another and more important sense the base of the system, in that the ideas prevailing in the university, and the scale of values established there for the different components of human life, operate, or ought to operate, all through the land. If the spirit of the university is narrow and quarrelsome, it will be apt to spread like a disease ; if it be the spirit of truth-seeking and high emprise, and if the universities are the "nurses of nobility," the country will reap the gain. For not only the majority of the teachers in the high schools, but the clergymen, lawyers, doctors, engineers, miners, and happily a growing number of our journalists, business-men and mechanics are passing through the university, and disseminating the ideas which they have gathered there. The university is the fountain and must largely determine the character of the stream.

"In all ages," writes Rashdall (*The Universities of Europe in the Middle Ages*, Vol. II, Pt II, p. 715), "universities have been the great homes of movements." Again he says, "It was through her" (Oxford's) "influence upon the religious life of England that the University of Oxford did, as we shall see, at one supreme moment open a new page in the history of England and of the civilized world."\* (*Id.* p. 520). And Cambridge, too, played no insignificant part in the religious emancipation of England; Latimer, Coverdale and Cranmer being educated there.

But the university may at any time fail to discharge the trust imposed upon it. It may harden into a settled and inflexible routine, as it did in the days of Elizabeth, when it championed Aristotelian Scholasticism against the rising spirit of investigation, and justly incurred the criticism of Bacon, Hobbes and others; it may substitute mere learning for vitalizing and vivifying ideas, and like the pedants Sir Nathaniel and Holofernes (in *Love's Labour's Lost*) fall under the ridicule of the illiterate ; it may even forget its function as the servant of the community, and, hiding its light under a bushel, become an exclusive coterie. No institution has any prescriptive grasp

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\*He refers to the reforms instituted by Wycliffe, which, although they were in outward appearance crushed, worked silently beneath the surface of Oxford life; and at the same time Bohemia was being torn asunder by the revolt, led by the famous Huss, which Wycliffe's words had done so much to excite. (*Id.* p. 642.)

of truth, or can depend for its inspiration on anything but its staff. Just as a weak ruler like Henry VI of England may follow in time the glorious Prince Hal, just as what Walt Whitman calls a "filthy Presidentiad,"\* with "Scum floating atop of the waters," and "Bats and night-dogs askant in the Capitol", may succeed able and aggressive leaders, so also in the university the torch of wisdom may flicker and smoke, and the intellectual leaders be themselves blind.

But in such an evil plight there is only one effectual remedy, namely, to reform the seats of learning. It all comes back to that. No device, no manipulation of machinery, no modification of system or organization, is a substitute for enlightened men. The colleges are the van of education, and if in the van you get leaders, the army is disciplined; otherwise it is a mob. The war department's duty is not to fight, but to get good soldiers and leave the fighting to them; so the education department does not teach, but it puts good teachers in places of trust, and expects them to do the work.

## II.

What, then, is a university? And what service is it expected to discharge?

1. In reply to this question let it be said first of all that every university includes and must include students, and therefore a university is an association of students. To every student the university means at least the college world of new associations and new comrades. The bright boy or girl of the high school is brought into contact with other bright boys and girls from other schools, and each is stimulated by the others. Moreover the new student meets and becomes acquainted with the advanced student, a word or two from whom at the outset may make on the beginner a deep impression. Thus the air of college acts as a mental tonic. Then, to enlarge the idea of the college society, there are the graduates who have left college and yet still belong to it. They form a company, whose ranks the undergraduate will in few years formally enter, and by whose code he will be and is even now influenced. There is

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\*Presidentships of Polk, of Taylor, succeeded by Fillmore, and of Pierce, 1846-1857.



also the "cloud of witnesses", after whose names in the calendar is written the word "deceased," who make a silent appeal to the student to keep unstained the honour and traditions of the place.

It is not possible to overlook the value of the personal association of student and professor, an association which in some cases ripens into friendship. Such a connection deepens in the student the impression produced in "class", that ideas are not fixed entities, but are in course of formation in the mind of every real professor; it also is of advantage to the professor in that it often helps him more effectually perhaps than the work of the class to rethink his views in the light of carefully stated difficulties. But even in the regular class-work the distinctive mark of the university is that the student meets in his professor a man and not a book. "A university is, according to the usual designation, an alma mater, knowing her children one by one, not a foundry, or a mint, or a treadmill." (Newman, *Scope and Nature of University Studies*, p. 205).

I do not wish to suggest any sort of contrast between the teacher and the text-book. A university without a library would be ill-equipped, and one of the clear duties of a professor is to indicate to the student the best literature of the subject. But none the less a true professor is more than any book, because he is the living medium of communication between student and library. He makes books intelligible and the library available. He opens the seven seals. He is the doorkeeper of the temple inhabited by the mighty living and the mighty dead, and to this doorkeeper the student, wishing to make the acquaintance of those within, presents his card. Thus the university is the place where fellowship or comradeship of the highest kind is made possible, where the student, under the guidance of the professor, as Dante was led by Virgil, learns to know, revere, and haply also to love the Immortals. That is a rare possession, not indeed obtained by every university graduate, but none the less held out to him by every living university.

2. It may be said, in the second place, that the function of the university is to impart knowledge. Knowledge, indeed, which can be had without any change in our hopes, aspirations

or conduct; knowledge which could be proved to be false without any tinge of regret on our part can hardly be denied to be knowledge. At least if the term "knowledge" be thought to be too good to apply to that kind of mental possession, perhaps the term "information" would suit better. And certainly it is the object of the university, at least at the outset of the student's career, to impart necessary information. But this information is clearly the lowest or most elementary kind of knowledge, and the acceptance of it by the student is only his first attitude of mind toward the question. Soon the student's own faculties are, or ought to be, set going and he seeks to test the value of this information with the view of rejecting it or, on the other hand, of raising it to the level of knowledge. Yet we must not despise the first stage, at which the student becomes informed and looks up to the university as an oracle. Indeed what we have permitted ourselves to speak of as a first stage is really not so much a stage as it is a permanent though subordinate condition of mind; since just in so far as we are rightly called ignorant of anything, it is also our duty to be informed; and the university is from that point of view the student's information bureau.

Yet wherever information is the total contribution of the university to education we find narrowness of two different kinds. We find, first of all, the narrowness of the man of the world, who, pointing to the manifest unserviceableness of the university-man's heap of information, considers a graduate an ignoramus and education a waste of time. Then there is the corresponding narrowness of the pedant, who looking on his information as the sum of wisdom, despises the uninformed as vulgar. (Cf. Plato's contrast between the love of wisdom and the shrewd little lawyer in the *Theætetus*.)

Wherever knowledge has no effect on feeling and will, knowing, feeling and willing seeming to be entirely separate compartments of mind, we are still at the merely initial or rather inadequate point of view of information. Every real student is perfectly familiar with the way in which his knowledge gradually eats away the boundary between it and the cherished prepossessions with which he began his course, and thus finds that the influence of the university may begin but

certainly does not stop with the imparting of information. Whether the process of advance be one of intellectual construction, like the construction of a machine, no separate faculty being able to do the work of mind, any more than a boiler of a locomotive, or a cylinder or a wheel can of itself haul one pound of freight; or again, whether the process be one of intellectual osmosis, by virtue of which the dividing walls permit the invasion of one faculty by another, so that they together become one mind; or whether the process be rather one of growth, in consequence of which a student of necessity comes only gradually to an effective comprehension of himself—however the process of mental enlargement be defined, the fact is clear that to impart a knowledge which stops short at information is only a subordinate factor in the whole work of education.

It has often been pointed out that education in the highest sense of the word is not simply the acquisition of information, but rather such a mental discipline as will enable the student to form sound judgments and frame adequate ideas. Perhaps a verbal distinction is not necessary; but the difference between the knowledge or information adopted at second hand and the knowledge which the student makes his own—a difference almost as wide as that between such an organ as the heart and the presence in the body of some foreign material—may be said to be the difference between a dogma and an idea. The essence of “dogma” is that it is authoritatively announced and unquestioningly accepted. The essence of “idea” is that it is the result of patient thinking. Consequently ideas must be continually growing, while a dogma is a finished product. When an idea ceases to be an idea it stiffens into dogma; a dogma, if I may use so strong a metaphor, is the corpse of an idea. Or to put the matter less abruptly, the laboratory is the place of the idea, the museum of the dogma. What we here call an idea Huxley in his *Science and Culture* (p. 49) describes as “practical, familiar, finger-end knowledge.” Such knowledge, he says, has become an “organic part of the mind, so that one would know it if he were roused and questioned in the middle of the night, or as a man knows the geography of his native place and the daily life of his home. That is the sort of knowledge which once obtained is a life-long posses-

sion." Newman, too, understands and clearly explains the same point (Scope and Nature of University Education, p. 157) where he says "Such knowledge is not a mere extrinsic or accidental advantage which is ours to-day and another's to-morrow, which may be got up from a book, and easily forgotten . . . which we can borrow for the occasion, carry about in our hand, and take into the market ; it is an acquired illumination, it is a habit, a personal possession, and an inward endorsement." The work of the university, then, according to these writers of very different types of thought, is the creation of a frame or disposition of mind, the power of constructing and recasting ideas, the ability to accept light from any quarter; in a word, flexibility, adaptability, openness of mind. It is typified by the living-room of the house, not the store-room.

Here are two illustrations of what openness of mind is not. A young man brought up in a strict religious belief passes into college and discovers that his views do not pass muster with, let us say, Carlyle. His first thought of course is that Carlyle is astray, and he may even comfort himself with the words "Not many wise are called." After the session's work he returns home and unbosoms himself to a college graduate, who up to this time had been a sort of mentor. Here is a golden opportunity for the guide to be of great service to the youth whose footing had become insecure ; but, instead, he solemnly replies, "Too true ! too many of these gifted intellects cannot be trusted in matters of religion." Not only is a man of genius misprized by such a judgment, but the first tender sprouts of independent thought in the mind of a young man are chilled as by frost. Again here is a more flagrant instance. A reader, turning over the pages of the *Popular Science Monthly*, lights upon certain photographs of human beings with short but distinct tails, illustrating reversion to an ancestral type. An acquaintance, glancing at the pictures, remarks "Do you put any faith in such theories ? Why, these tails are sewed on !" It is not my point here to argue for or against any particular theory, but only to stamp as uneducated the mind closed against inquiry. Now the university is the place *par excellence* where it is insisted that truth stands on its own foundation, that "thought is free," that the disciplined and tested

mind is the mind which insists on truth and is never satisfied with hearsay, *ipse dixit* or foregone conclusions. While a certain amount of information must be acquired by the undergraduate, there must come along with that, if he is to be called educated, the desire to cherish nothing that is false, and to reject nothing that is true, and this desire is openness of mind.

Two qualities of mind stand one on either side of openness and are to be carefully distinguished from it, namely, acceptance and scepticism. Openness of mind is not the acceptance of all ideas as equally true, but rather a willingness to investigate into the special claims of each. Nor is it, again, the rejection of all ideas as equally false. Pure undiluted scepticism is the shut mind, since according to it all inquiry is fruitless.

Adaptability of mind is the soil of a valuable plant, sometimes known as "academic freedom." The liberty to say what is in one's mind is the complement of the willingness to consider what is in the mind of others. There is always a danger that freedom may degenerate into a license to say anything at all, but this undisciplined liberty is the very antithesis of academic freedom, which involves self-criticism and reserve. Debate may be a high argument, in which each participant wishes to understand the other with the view of arriving at truth; or it may be a wrangle in which each strives to silence the other. You obtain peace when the contending armies are all slaughtered, and also when opponents are reconciled. Academic discussion is always a means. It is not "open war;" nor is it the amiable, hollow and simpering agreement with what you do not believe. Under the impulse of true freedom men differ in order to come to terms.

3. So we reach the third main feature of the university, the combination of the first and the second. The first main point was that the university was a society or community of kindred spirits; our second that it fosters unbiassed inquiry; and now the third is that it inculcates a spirit of reverence. That type of mind, known as humble, reverent, wise, is the mark of a community of free workers, each of whom recognizes the others as consistent truth-seekers. It contains the Newtonian or Socratic consciousness of ignorance, and the Wordsworthian receptivity or willingness to listen to the sum of

things forever speaking and to feed the mind by a wise passiveness. It contains a sense of one's insignificance in contrast with the universe, but it contains also the idea that the universe is true, beautiful and good.

Humility of mind, as a characteristic of the ideal university-man, is not an abject and slavish abdication of one's reason, not a burial of one's judgment in a napkin, but rather a sense of the vastness of the treasure to be known and possessed. If the desire to know amounts to thirst and hunger, if it contains an enthusiasm for its object, we are in a position really to know. It is not necessary to remain in the outer courts; but if we are to enter the sanctuary we must bare our heads.

One type of man untouched by this deeper side of university life is the pedant for whom there is nothing mysterious, such a personage as Wagner portrayed by Goethe in his *Faust*. Wagner's interest in the ancients consisted in his seeing how relatively immature they were and how really superior was the modern. For him there are no "airs and floating echoes" nor any "murmur of a thousand years"; but everything is stamped and ticketed, completely classified and known. He well merited the rebuke of Faust, "My friend, the times past are as a book sealed with seven seals."

Observe, however, that this final fruit of academic training is not on the other hand a belief in pure mystery. It stands between blind faith and blind arrogance. Although it has a sense of the mysterious, its arcana is the arcana of truth, which it is a duty to explore. It is arrogant; but its arrogance is the childlike audacity of him who without haste and without rest makes for his goal.

In this deeper university spirit the controversies between science and literature, or again between science and theology, are already solved. It is the solution, indeed, of the conflict between all one-sided and partial conceptions, since it is prepared to see "the soul of truth in things erroneous." Under its impulse the advance of science is steady and secure. While it welcomes the settler, it welcomes also the voyageur, both types of mind being needed, if the whole kingdom of truth is to be mapped out and taken possession of.

A disposition which is at once simplicity and breadth is in the very air of every true university, because it is a corporation of specialists, each of whom is ready to acknowledge the educational value of disciplines which he himself does not and cannot pursue. There is something inspiring in the very idea that the cause of truth is furthered by each worker's special contribution. Just as the wall was constructed in the time of Nehemiah by each man's building opposite to his own house, under the eye of the overseer, so by each teacher's working at his own subject, and keeping his eye betimes on the others, the temple of truth is reared. The university spirit animates the special inquirer when he recognizes that he is one builder out of many in the college union, and that the real work of the university is accomplished only by each man in the ranks feeling the elbow of his neighbour, by the cordial support of all by each, and each by all. The strength of the university in its conflict with folly, ignorance and inertia is that it fights in battalions. Each professor understands that the others are doing work as good and necessary as his own; and yet that his own must be done and by himself. He is possessed of the two-fold faith that there are many things as good as leather, and yet that there is nothing like leather for boots.

### III.

I have dwelt at length upon the nature and function of a university, because on a right understanding of this point everything else hinges. If it be true that the university is in its essentials such as I have described it, then it needs no lengthened argument to show how wise it is to bring under its influence as large a number of teachers as possible for as long a time as possible. This has been recognized in other directions by the establishment in connection with the university faculties in theology, medicine, law, mining and engineering, music and in some cases journalism and fine art. There is no case in Canada of a faculty in theology or medicine existing where there is no arts college. The regular arts undergraduate is steadied and stimulated by the presence of graduates pursuing some professional work—and these graduates, retaining their status as students of the university, remain directly under its

influence. Wherever a profession is thoroughly organized, the professional training is carried on side by side with the liberal training of "Arts." Teachers are the only exception. The university pays no attention to the teacher further than to draw up several courses, approved by the Department of Education, from which the candidate for specialist must make a selection, but the prospective teacher leaves the university in order to undergo his professional training.

All intending clergymen, whether they are to preach in a city church or a country schoolhouse, take the same course; the future country practitioner has the same examination as the city doctor, and all lawyers pass the same course. But with the teacher again the case is different. Only those who look forward to positions in high schools are found in college. The others never spend an hour within the walls of a university.

In the face of these facts how can we call teaching a profession? Is it any wonder that teaching in public schools is shunned by men? Or that the official life of a public school teacher is now only three years? Would it not be surprising if it were otherwise? Does it not almost seem as if pains were taken to place the stamp of inferiority on the teacher of the public school? It is obviously not possible yet to demand an Arts degree of all teachers in the province, and yet that is an ideal towards which we should move. And if this ideal be kept in view, fewer mistakes, fewer retreats and fewer dislocations in our system will be made. While accommodating ourselves to the conditions, we should head in a given direction. Even if we cannot sail across the Atlantic in a day, we can nevertheless sail across the Atlantic if we sail daily towards the same point. By being sure of what we desire and persistent in seeking it we obtain it finally. Hence it is of importance to keep in view that all teachers should come in contact with the university. That leaves the way open to every desirable future advance.

To carry out this suggestion, or at least to begin to carry it out, it is needed simply that the model schools already established in university centres should be connected with the university, the university, in conjunction with the high school, supplying instruction in such subjects as manual training, elementary



science, mathematics and English literature, and also in the methods of education. The public school would as before supply the field for practice. This beginning could be extended in two ways: (1) The number of model schools might be reduced, and the term made to coincide or nearly coincide with the university session. The model school situated in a university centre would be likely to attract candidates and the influence of the university would be correspondingly widened. (2) A post-graduate course of lectures on methods might be instituted for those candidates for specialist certificates who now elect to spend two years at the university as tutors in lieu of attendance at Hamilton. It could be left to the future to bring into line the normal schools.

Thus at last teaching may become a real profession, the aloofness of the university may disappear, something approaching to educational solidarity and brotherhood be established, and every schoolhouse even in the remotest settlements reap the advantage.

S. W. DYDE.

## STEREOSCOPIC PICTURES.

**T**HE principal defect of a photograph of a landscape as a representation of the original is its lack of relief. Dimness or indistinctness may mark some parts as at a greater distance than the rest; but, on the whole, the photograph tells nothing about the distance of various parts, and gives little idea of their relative positions. To represent the objects at their proper distances and in their proper relations, the two pictures of the ordinary stereoscope are necessary, so that each eye may have that view which it would have of the real landscape.

When the lenses of an ordinary stereoscope correspond with the lenses of the camera used to make the photograph the representation is most satisfactory. Each eye, then, not only sees what it would see if looking at the real object, but is in the same condition as regards accommodation and direction of vision. There is therefore no uncertainty about the interpretation of what is seen. Objects fall into their proper positions at once and are recognized as belonging there.

Publishers of stereoscopic pictures have of recent years tried to develop the legitimate function of such pictures to the highest extent. A set of stereoscopic pictures of a country is accompanied by a map showing the place from which each picture was taken and the portion included in it. The study of such a set gives a knowledge of the geography of the country which in its completeness could not be obtained in any other way except by travel.

A rather curious use is made of the stereoscope in studying the sky. If two photographs are made of the same region of the sky at different times, the fixed stars are in the same positions, but any planet, comet, or asteroid, in the region has moved in the interval. If the pictures are placed in a stereoscope the body which has moved stands out in front of the others and is at once detected. Such pictures help us to realize the nearness of planets and comets as compared with the fixed stars.

The object of this note, however, is to call attention to two more recent methods of stereoscopic representation, which involve interesting scientific principles, although the results do

not in general satisfy the eye quite so well as those obtained by the ordinary method.

The essential requirements of stereoscopic representation are, that there must be two pictures, and that each eye must see only one.

These pictures may be printed over one another in inks of complementary colours, such as suitable shades of red and green. Suppose the picture intended for the left eye printed in red, and that for the right eye in green. The result seems utter confusion. But if it is looked at through a pair of coloured glasses of which one is red and the other green, the red glass being in front of the right eye, the confusion disappears. The right eye, looking through the red glass, does not see the red picture at all, since red ink and white paper look equally red through the red glass. It sees only the green picture as black upon a red ground. Similarly the left eye sees only the red picture as black upon a green ground. The condition is thus fulfilled that each eye sees only the picture intended for it. Objects therefore stand out in proper relief. Since corresponding parts of the two pictures are complementary colours of equal intensity, the result is uncoloured, that is, it ranges from white to black.

It might be expected that where the left eye saw green, and the right eye red, there would be some difficulty about combining the two sensations to form the sensation of white. But this is not noticeable. A more serious difficulty is that the eyes are looking at the picture close at hand and have a tendency to locate the objects in various planes in front of the picture rather than to imagine them extending off into the distance. One misses the lenses of the stereoscope which relieve the eyes of the strain of accommodation. On the other hand, the size of the pictures is not limited as in the stereoscope where the length of a picture can not be greater than the distance between the eyes.

The same method may be employed to show stereoscopic pictures to an audience. The red and green pictures are thrown together on the screen from two lanterns or a bi-unial. Each person in the audience requires a frame containing a red and a green glass.

The coloured pictures can be printed very cheaply, though the result is not satisfactory unless some care is taken to select inks which suit the coloured glasses. Though the process has been known for several years the pictures are just becoming common. It has burdened lexicographers with new meanings for "anaglyph"—a name given to the composite coloured print, and "plastograph"—a name for the pair of coloured glasses.

A still more recent method of producing stereoscopic pictures is due to the genius of Mr. F. E. Ives, to whom we owe many improvements in process, and especially three-colour, reproduction. The results are called "parallax stereograms." Parallax is the name given to the apparent motion of an object on account of the motion of the observer. For instance, if a person sees two trees in line with his eye, and moves to one side, the more distant tree appears to move away from the other in the same direction, this is called parallax. The distance between the eyes also causes objects to appear in different positions when viewed by the right and left eye. This kind of parallax may be illustrated by holding up two fingers of the left hand at arm's length in front of the face and holding one finger of the right hand two or three inches nearer the face. This finger may easily be placed so that when the right eye is closed it appears in front of one finger of the left hand, and when the left eye is closed in front of the other. This is the principle of the parallax stereogram.

The right and left pictures of the object are taken through screens ruled with parallel lines, 100 to the inch. Two line pictures are thus obtained. These are printed over one another so that the lines of one fall between the lines of the other. The result is a composite having 200 lines to the inch belonging alternately to the right and left pictures. This is looked at through a screen of 100 lines to the inch placed a small distance in front. The result is that each eye sees only the picture meant for it and the object stands out in relief. Very beautiful results are obtained in this way, but the necessarily high cost will limit the usefulness of the process.

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## SECONDARY EDUCATION IN GERMANY.\*

THE teacher in a German gymnasium is on the one hand a state official; he stands, directly or indirectly, in the service of the state. On the other hand he is a man of learning or science; he is the medium by which higher knowledge is acquired and diffused. But he has also another function, not the least important of the three: he is an instructor or educator. In the first two respects he agrees with the university teacher, who is at once a state official and the medium for the advancement and diffusion of higher knowledge. But in Germany the university teacher is not an instructor; his main function is research of some kind.

What is distinctive of Germany will become more apparent if we compare it with other countries.

In England the teacher in the higher schools is neither an official nor an investigator. He is not an official: the higher schools in England are only to a small extent old foundations, much the greater number being private adventures, either of corporations or of individuals, who conduct them for their own profit. The teacher is simply an employee, often in the closest dependence on his employer, and always liable to dismissal at will. And he is not an investigator, i.e., in his official capacity. There are, no doubt, exceedingly able and scholarly men among the teachers of the great "public schools," but as the training of the teacher is not a matter of public regulation, there are teachers in many small private schools whose only recommendation is their cheapness. And even those men who are real scholars have not the feeling nor do they act in the capacity of scholars. English teachers are above all primarily instructors, and in this capacity they are in fact wonderfully successful.

In France, the land of rigid state organization, the teacher is also a state official, and that in the strictest sense,—at least in that part of the *Université de France* founded by Napoleon

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\*Extract from an Address by Professor Paulsen, of Berlin University, delivered before the Teachers' Association at Darmstadt. Translated from the *Deutsche Rundschau*, June, 1904.

I, which belongs to the school system of the state,—but he is not an investigator. The intention of the Emperor was to create a militarily organized staff of teachers, after the model of the training school for officers, who should fill the mind of the youth with correct political ideas and develop forces useful to the state. An independent position in the scientific world seemed in this case neither requisite nor profitable; and therefore the education of the teacher did not consist in independent scientific study, but in prescribed courses and examinations in the *facultés des lettres et des sciences*, the state schools established for this purpose. The Third Republic has made very serious efforts to improve the education of the teacher, especially by raising the departments to a higher level and by organizing them after the model of the German universities. These efforts have not been without success, but it is hard to get rid of old and deeply engrained habits. The complaint is still heard that the official over-rides the teacher and scholar, that the teacher in the Lycée,—as I once read in the able and instructive *Revue internationale de l'Enseignement supérieur*,—is simply a narrow and formal functionary, without the least independence; plan of instruction, methods, authors and exercises, are prescribed and supervised, nothing being left to individual insight. And just as hard is it to undo the effects of long delay; it would be easy to bring any number of witnesses of French origin to prove that the French teacher does not occupy so high a position in the world of letters or science, and that his social status is lower, than that of the German gymnasium teacher. While it is true that teachers of distinguished scientific attainments come from the *Ecole normale*, numerous more or less poorly equipped teachers find employment, especially in the small *colleges* and the institutions of *enseignement libre*, who possess nothing but a *certificat d'aptitude*. There is a lack of that uniformity of training which in Germany determines the character of the secondary education.

In Germany, therefore, the high school teacher shares with the university teacher the double character of being at once a state official and a scholar or man of science. And indeed one may say that the emphasis is laid on the latter. His position and social reputation are determined by the fact that he not

only has a definite rank as a servant of the state, but has also a place of his own in the world of letters and science.

This peculiar character of the high school teacher is shown in many ways. I may refer to the following :

Firstly, as regards his training: it is entirely the education of a scholar. The high school teacher receives at the university the same education as if he were intended to be simply a scholar. The lectures and seminary exercises really pay no heed to the fact that the majority of the students intend to be high school teachers; these proceed as if their vocation were to appropriate and advance scientific investigation. That is true especially of the seminaries; their object is to introduce the student to the work of research, whether in the realm of nature or of the humane sciences. So also the examination of teachers has a scientific character; the written compositions prepared at home with all the literary aids aim at giving an independent solution of scientific problems, after the manner of the academic dissertation; they are not like examination papers which merely give answers to prescribed questions.

Since the future gymnasium teacher leaves the university with the feeling of belonging to the class of scholars or men of science, perhaps also with the regret that he cannot find his life-work in the university itself—there are some men of power and ability who have not even dreamed the dream of an academic career—this consciousness remains living in him, even when he enters the profession of teacher. On the other hand, there are among the ablest members of the profession few who do not feel it to be their right and their duty, an obligation of honor, to do something themselves for the advancement of knowledge. And a great part actually carry this idea into effect, often under difficult circumstances, and with the expenditure of very great energy of will, not seldom also at the cost of health. We have only to turn over the pages of a German magazine of whatever branch of knowledge to gain an idea of the extraordinary extent to which the gymnasium teacher participates in the work of research. And even in the production of books his share, quite irrespective of text-books, is very considerable. Besides, the publication of scientific treatises is imposed upon teachers almost as a part of their professional duty—

I mean in the supplements to gymnasium programmes. The teaching profession thus so to speak presents itself in an official capacity to itself, and to the learned world in general, as a learned profession—a fact of considerable importance—and thus it forms what may be called a little Academy, in which all branches of knowledge are represented by men actively engaged in its production. Moreover, it is not uncommon even in our day for the gymnasium teacher to pass into the university and the academy. There is thus no doubt that a considerable part of the scientific work which gives to the German people at the present day so prominent a place in the total life of the civilized world is done by gymnasium teachers as a supplement to their ordinary work.

From this character of the teaching profession the school obtains its peculiar character; it is, as is indicated by the survival of the old name, "*Gelehrtschule*," a school for the preparation of future scholars and men of science. This is especially evident in the more advanced forms; the teaching here assumes the character of an "Introduction to Science." We use the term merely for the Philosophical Introduction (*philosophische Propädeutik*), which is not expressly taught, and as one may venture to say, will not again be taught for some time. It is no doubt true that there is an introductory course in philology; I do not mean that as a reproach, though the objection has been taken to the gymnasium that it is merely a school of philology; I mention it as a term of praise; even to-day there is given, though not to the same extent as formerly, an introduction to elementary scientific work in the realm of the ancient languages and of ancient history. And so in the *Realanstalten*, an introductory course is given in mathematics and the natural sciences, and at least here and there a certain training in scientific work.

Such introduction only those teachers can give who are themselves engaged in scientific work. And therefore it is not unimportant that now and again proof that such work is actually done should be given to the public; thus a scientific atmosphere is created which interpenetrates the whole with its invisible power and surrounds the pupil with its imperceptible influence. Of course it is not possible for every one to produce and publish scientific



treatises, nor is it even desirable. The school also needs teachers who devote themselves entirely and with the expenditure of all their powers to the service of the young; these are not less valuable nor scientifically inferior because they renounce literary activity and with Socratic love make it their whole aim to generate spiritual life in the receptive souls of boys and young men. But it is none the less important that the teaching profession should always be represented in the learned world by able scientific products, even for the sake of the school itself and the scientific atmosphere thus created. Of a distinguished scientific man we have learned quite recently how much he owed in this respect to his school training.

That is one side: the German gymnasium teacher is an investigator. The other is: he is an official, and indeed essentially a state official. The teacher thus enjoys the security, the independence, the respect, which in Germany attaches to this position. And he will be by no means inclined to underestimate those things; the dependence on superiors, which is implied in the nature of the office, is on the whole certainly less objectionable than dependence on a private individual or on social magnates and the public. On the other hand, the profession has the satisfaction of knowing that it has acknowledged its indebtedness to the state for the position which it occupies in it. In no other profession is there stronger national and political feeling or a higher consciousness of what is due to the state and to its political leaders. What the German people owe to it politically was expressed by Prince Bismarck at an important crisis, and not less significant is the foundation on which he has placed the teaching profession.

In the last half century the official character of the teaching profession has come somewhat more to the front. This is especially evident in the greater importance attached to the qualities of those who are appointed to the higher positions of director and inspector. Not these only, however, for recently more justice has been done to the position of the teacher himself: since the teacher is a state official, it is now demanded that what is due to him should be given to him completely and entirely; that the same position in respect of rank and income

should be allotted to him as is given to other academically trained officers of the state.

It lies in the nature of things that this demand should provoke opposition and conflict. The office of the higher teacher in the gymnasium has been most recently admitted among the academically educated callings, and privileged professions have never yet admitted those of younger growth to equality without reluctance. Nor is it even yet possible to avoid more or less friction; there is still much prejudice and resistance to be overcome before complete equality is admitted, especially by the class to which, according to the confession of its most distinguished representatives, the lead in all public affairs belongs. It is an object, however, which cannot be abandoned; the question is not merely in regard to the private interest of the teaching profession, but also in regard to the interest of the school, and therefore of the people and the state; open depreciation in the eyes of the public not only places the profession in a more unfavourable position in the selection of candidates for the office of teacher, but also increases the resistance of parents and scholars to its influence.

It will therefore still be necessary in the future to devote attention to this point; no doubt all has not even yet been attained which must be conceded, either as regards income or rank, especially in the case of the higher offices in the school. Two things, however, must not be forgotten.

The first is: the teacher is an official, but an official of a peculiar type; he is an official in the service of culture, not a political official; he is not really a political servant, but a servant of the national culture, and therefore of the state only in so far as it makes culture its end. That must react on the whole position and treatment of the profession. The office of teacher must assume a sort of exceptional position, analogous to that of the clerical office in the old national churches. As here the state limits itself to *jus circa sacra*, without claiming a *jus in sacra*; so in the case of education, to the state belongs the superintendence and advocacy of education, but not a direct control over it; to the teaching profession as a whole will be granted a larger autonomy and self-regulation than is possible and necessary in the military, political and industrial realms.

This principle is recognized in the case of the university. Something similar will be necessary also in the case of higher and lower schools.

The second thing is this: the teacher must not expect that the importance of his office will be as evident to the public as that of the military or political professions. He must not make the mistake of supposing that he can ever stand in the front rank in the hierarchy of officials and in social estimation. Even if the state has in the fullest measure put him on an equality, the military officer, the political and the law official, will always occupy a higher place in the estimation of the many. That lies in the nature of things: on the one hand they have much more power, and on the other hand their activity is of a much more tangible and elementary character in the life of the whole and of the individual; and we must not forget that the fate of the nation lies mainly in the hands of our political and military leaders. On the other hand the activity of the teacher is silent and invisible and takes long to bear fruit, and is still further lowered in the eyes of the public from the fact that it has to do only with the young. So it is, and I suppose so it will always be. He who has just left school naturally looks down upon what he has now got "done with",—his school-books and exercises, and it may be his teachers, even they are "done with," even they are merely for boys. It only remains to accept the situation once for all, to look without envy on the more brilliant positions of the military officer and lawyer, and to say to oneself: It is not to be expected that the finest, most penetrative, most intimate, art, the art of forming and shaping human souls in silence, should have the greatest and most brilliant effect in the eyes of the masses. To value honour in the sight of God higher than honour before men, is the only way to lift one's self above the disability of external position.

Certainly there is another way of raising the profession in the public estimation, namely, the consideration of its place in the scientific world. Or rather one may say: a man whose name is renowned in the scientific world is *hors de concours*; like the artist or the poet, he has no need to strive for rank in the state and the respect attached to it; at least he need not do so, although not all escape this weakness, not even all univer-

sity scholars; even here the hunger for rank has for long not been unknown. Therefore also this way of attaining equality lies open to the gymnasium teacher. And one may say, that originally his position in Germany was based upon it. In the words of the poet he may say of himself with a certain pride, "man is creator of his own worth." And so also as a result his total position in society is determined by his position in the learned world.

It is a very pleasant fact that the bureau of education in the leading German provinces has recently again begun to give increased attention to this side of things. In Prussia a new office has just been established, that for the furtherance of research among gymnasium teachers. By granting holidays, subventions, travelling expenses, the authorities, so it is said, stimulate the desire for scientific work, and make its accomplishment easier. They have still other means in their hand, such as taking distinguished productions into consideration in making promotions, which no doubt is rendered more difficult by the principle of seniority, or by the transference of able men to the universities; the closer are the relations between these two educational institutions and the bureau of education the better. A particularly important thing is the lessening of the class hours and all that it implies. We may hope that the bureau of education will not lose sight of this point, if it desires to promote scholarly work in the teaching profession; the simplest way is to free the teacher from excessive daily class-work.

I do not doubt that such an expectation and stimulus will call out a joyous zeal in the mind of the German teacher. Of course scientific production is not his special work, just as it is not really the work of the university teacher; it belongs to the *opera supererogationis*. He who does it acquires merit, a merit both for his school and for the teaching profession; for it is here, as with the good works of the saints, what the individual acquires is counted to the whole. This his colleagues must bear in mind, if they find him abstaining from social intercourse and not over-eager to undertake additional school-work, his time being fully occupied with scientific investigation. Perhaps there may even be a certain amount of grumbling. "He

thinks himself very clever and would like to get time for his hobbies and rubbish at our expense." If the teacher in question has an inner call, if it is not merely personal vanity and conceit which lead him to publish, if he is serious about the matter, nothing should be put in his way; it is also for our advantage and brings increased respect to the whole profession. If such work is not done, if every teacher limits himself to school work, the position of the whole profession is lowered.

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## IS ONTARIO TO ABANDON CLASSICAL EDUCATION?

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**M**R. SEATH has had his way in the matter of the new Education Bill. Latin has been made merely optional in the training of the Public School teacher, and that in spite of the fact that a large majority of the teachers at the last meeting of their Association voted in favour of its retention as a compulsory subject. That vote was supposed to represent the opinion of the most highly educated men in the profession, and in particular of the teachers at the universities. Even if we grant that professional opinion was more divided than the vote showed, it is still evident that something is wrong when Mr. Harcourt and Mr. Seath can afford calmly to disregard so formal and deliberate an expression of opinion as that vote was. It is not easy to avoid the conclusion that either the university men are pedants living on an obsolete tradition or that Mr. Seath is a hardy Philistine obstinately bent on dragging all Ontario after him in his evil courses. I should be sorry to have to accept either alternative, but how else is the matter to be explained either to ourselves or the public?

### THE CHANGE IN OUR INTELLECTUAL IDEALS.

One of the things which no doubt emboldens Mr. Harcourt and Mr. Seath to disregard the vote of the Teachers' Association is the trend which the mind of the general public is at present taking in educational matters. The changes which are taking place in our educational system are of course only the reflection of certain changes that are taking place in our life. Even in high speculative regions our minds are turned more than they were to the study of the forces of the universe which lies outside of man and less than they were to the study of that universe which in a sense is the creation of man's mind, the universe of art, literature, subjective philosophy and subjective religion. Art has a secure basis in the aesthetic instinct of man, though the English-speaking peoples have never really possessed it as a popular form of culture, as the Italians, Germans and some other nations have. Religion has a history of its own; but literature and the older form of philosophy have both suffered in different ways and degrees from this displacement of

interest. I am quite willing to admit that this change is to some extent a beneficial one. We needed the new materials and the new methods. And both are happily of a kind that can be made to appeal successfully to a wide general public. Those who could read Plato or Kant were always few in number, but almost everybody can appreciate the proof of the oneness of matter given by Sir Oliver Lodge in a 3-page article on electrons.

But it is not from the side of pure science that the danger to the older literary studies threatens us so much. Pure science in the high intellectual interest it excites has something not unfriendly to philosophy and literature. It is rather from the popular conception of what is useful in education that the danger arises. If our educational system is to be based on popular tendency and the immediate needs of a democracy, then the natural apathy of the general public at present towards high forms of literary education will be sure, especially in our optional systems, to make the displacement I have spoken of greater than is safe. The keen interest which the public now takes in industrial and economic questions shows where our great social problems lie at present, just as for other ages they once lay in questions of Calvinistic theology or royal prerogative. The leading nations of the earth have become rival manufacturing shops, the old ideal of Free Trade, which supposed that each might be kept to its own natural and distinct line of productivity being virtually defunct. It is a race between them in commerce and ocean traffic and the military strength necessary to support and extend such traffic. The new democracies understand perfectly that technical education and equipment mean success both for the nation and the individual, and the average man therefore is naturally inclined to make the technical element in education paramount alike in our schools and universities as far as he has anything to do with them. He is ready to support the study of chemistry, engineering and mining at our universities, of tariffs and economic development, and of all subjects which have a demonstrable value for practical industry and the economic development of a nation. He will even admit the value of languages on their utilitarian side, enough French and German, for example, to enable

the student to read useful works of science in those languages or facilitate commercial relations with the nations who use them; enough English, also, for the practical purpose of learning to write and speak effectively. It is under cover of such needs, partly, that literary education seems to be holding its ground still in some courses. It might even seem on the surface to be extending it, but in reality it is becoming fragmentary and disconnected in its character and it is losing sight of its true ends.

Nobody in our day is likely to undervalue education of a practical utilitarian type. Quite the contrary. We all recognize its close connection with the primary and pressing needs of a democracy, and we know it can be combined with a high degree of intellectual discipline. He who wants an equipment in technical science must have his way made as smooth as possible. But there are other claims as well, and the question how far this technical kind of education should be allowed to displace the more general and literary type becomes a difficult one when we mix both up in one system and in the same institutions, especially under a system of options which gives free play to the popular tendency. The inevitable result is a certain confusion of educational ends and an atmosphere which is likely to be unfavourable to true literary education unless the institution is capable of making exceptional efforts in that direction. There is a difficult question of adjustment here in which mere popular tendency can be no safe guide.

#### GENERAL EFFECT OF THE NEW EDUCATION BILL.

I have been speaking so far of the general conditions under which our educational system at present works and which are found alike at our universities and in our schools. For of course the educationalist who disparages literary studies (that is, literary, classical and philosophical subjects) is the same man who disparages literary methods in the schools and thinks the only really valuable education is to be got from nature study, manual training, domestic science, and such subjects. It is in the light of these conditions that we must consider the recent action of the Education Department of Ontario in making Latin unnecessary in the training of a Public School teacher. Our new Education Bill is an open attack on Latin, but it is



also, though perhaps less consciously, part of a general movement against literary or humanistic education as a whole. Its framers must know that the general effect of it will be to increase the number of school teachers to whom the literary element in education, with the exception of the practical use of English, is only a vague and doubtful tradition and who will teach their pupils to look wholly to nature study and practical subjects for the valuable elements in their education. It adds a few hours a week to the teaching of English, but it takes away an important literary element in the education of the Public School teacher. And it is not simply the loss of Latin as a *subject*, and a very valuable one in the education of any teacher who has to teach the English language and English literature, that we have to reckon with; it is the loss of the classical teacher's personal influence and of his literary culture which was in a line with that of his colleague in English and completed happily the current of literary tradition. The Education Department seems to think it has made up for the want of Latin in the teacher's course by requiring some hours more a week of English. But it is not the same thing, nor as good a thing, from the point of view of literary education. English alone, one linguistic and literary subject amongst a number of practical, statistical and physical observation subjects, will not be of the same literary value as English and Latin together. The literary atmosphere is too attenuated. The subject is shorn of its natural supports and shrinks into a utilitarian study of speech, with perhaps a listless treatment of Shakespeare and Wordsworth which fails to stir the imagination of the pupil, partly because it stands unsupported psychologically by his other studies and partly because it is looked upon as rhetorical and ornamental rather than really useful.

#### THE IDEAL OF CLASSICAL EDUCATION.

Let us understand clearly what we are about to lose by this movement. Let us look fairly at the ideal of classical study. It may be true that the ideal was not always very well realized in the education of the teacher, but will it be any easier to reach the true ideal of, say, nature study? Something, however, is always reached when a high standard is set, and often more than the student himself may be fully aware of. The educa-

tionalists of the past did not talk much about the merits of their system, but any one who considers the subject fairly may see what a complete form of literary culture the old study of the classics was capable of giving. It combined in a very fine way the study of history, of antiquities, of poetry and literature, something of philosophy and something also which I might describe as a comparative study of civilization. Each of these departments threw an illuminating light on the other, for they were studied in their connection and were all diverse aspects of a civilisation which was closely related to our own but stood far enough away from us to be calmly surveyed and understood as a whole. It will not be easy to replace the orb-like thoroughness of that study as a literary and philosophical training. Its fruits were evident enough. It set the type of culture and trained the power of thought and literary presentation which you find in Gibbon and Macaulay, in Landor and Gray and Arnold, in Lessing and Sainte-Beuve. It is true that at the universities the study of the classics might be and often was spoiled by grammatical pedantry, yet wherever it was a truly literary form of culture there was always a vital flame in it. It is only when it is made a specialized form of philological and technical scholarship that its vitality as a literary training is really lost. Its true value always lay almost wholly in the way in which it can be related and really stands related to the movement of art and thought and life in our own time. The modern specialist in Latin and Greek who has read Thucydides and Plutarch, Horace and Tacitus, Longinus and Quintilian, but does not complete his literary education by making himself acquainted, as he may easily do, with the thought of Carlyle and Emerson and the criticism of Sainte-Beuve and Arnold, should be a horror to the friends of classical study. He cannot make his learning useful and is probably partly responsible for the poor opinion which the general public may have of the value of the classics. I am not sure but the great English University of Cambridge, by encouraging mainly a technical study of classical literature, has done more damage to the cause both of classical learning and literary education than their most active opponents could have done. The problem which classical teachers have to solve is not only how to secure

a place for classical study in our modern systems of education, but how to re-vitalize it as a form of literary education.

#### WHAT LITERARY EDUCATION MEANS.

Literary education ! What does it mean ? Many of our new educationalists seem to have something like a scorn for the word "literary" as suggesting a formal kind of knowledge more ornamental than practical. The essential conception of literary education as a whole is that it is the study of man's constant endeavour to keep alive his spiritual life by giving it a true and beautiful form of expression. The other uses of literature as a discipline or an art, though they may seem more practical, are really secondary. Men can become good speakers and debaters, and even good writers, without more than the A B C of a literary education, though no doubt literary education is the readiest means of making them proficient in these arts. But no man can have a true understanding of his own age and the meaning of its needs and activities, if his literary education is insufficient to enable him to see the present in relation to the whole of which it is a part. The present lives far more on the past than it is ever conscious of. Every moral and intellectual fibre of it is instinct with a life which draws its source and much of its value from the past and can only be rightly understood by means of the literary documents which give a full expression to the past. It is curious that it is so often the most enthusiastic exponents of the doctrine of evolution in the physical sciences who overlook the fact that literary education is simply the comparative study of the present time, and therefore the highest and most comprehensive form of that study. The study of man's constant endeavour to keep alive his spiritual life by giving it a true and beautiful form of expression !—If that is the real meaning of literary education, is it necessary to insist on the fact that our new democracies are growing up under conditions (amongst others, an entire absence of fixed traditions and dogmatic belief) which makes this kind of culture one of their great needs and indeed quite indispensable ?

How else is reverence for the ideal that the history of humanity discloses to enter into their education ? How else is their religious sense in our times to be developed ? It must

enter into the warp and woof of their training or it will never really enter at all. Is it not evident, therefore, that those who are seeking to displace true literary education by utilitarian studies are working at only one side of the problem? The want in their system will not be made good by the use of such pedagogical abstractions as "The Moral Virtues and their Reasons," or by a little English and French taught for practical purposes, or by a study of economic and constitutional development. American journalism one cannot but notice has some sense of this need, and is making vigorous efforts to supply it in its own way, which, of course, is subject to peculiar limitations. Indeed it is not too much to say that there is a juster and more lively sense amongst the editors of our dailies and weeklies of the needs of the new democracy in this respect than there is amongst our new schools of pedagogy.

THE PLACE WHICH CLASSICAL STUDY HAS IN LITERARY  
EDUCATION.

The question, then, as to the place which classical study should have in our modern system of education must be considered mainly from this point of view, how does it serve the great ends which literary education in general serves? What is its special place there? Is some direct knowledge of it essential to complete true literary education, or is it only a helpful addition as any other literature might be, in some degree at least?

Most educationalists in our day are ready enough to admit the deep and delicate organic filaments which connect Graeco-Roman civilization with that of our own time. Great material and political changes have rather disguised than altered our relationship. The structural forms of our poetry and oratory and the logical forms of our reasoning were grafted by the men of the Renaissance on Graeco-Roman literature. Many of the masterpieces of modern literature, Dante's *Divina Commedia*, Milton's *Paradise Lost*, Arnold's *Thyrsis*, and indeed all our great pastoral elegies and idylls, bind us fast to the classical world both by what they recall and by what they imply, though literary criticism has not yet done as much as it might have with that last point. Most of the important documents in the history of our civilisation cannot be read at first hand, with a

full sense of possession and enjoyment, without a knowledge of Latin at least. And if the colour of the Graeco-Roman mind runs strongly in our literature, it is still more marked in our language. The diction of the newspapers we read is, as far as the nouns, verbs and adjectives which give colour to speech is concerned, fifty per cent. of it, Graeco-Roman. Our philosophic and scientific terminology is wholly so. Even outside of literature our indebtedness to that classical world is still very great. Our modern jurisprudence has been moulded out of the maxims of Roman law. The civic buildings I see every day in this land where the Huron once built his wigwam, are the work of the Graeco-Roman mind, adapted to modern use by the Italian of the Renaissance. The modern builder contributed only the stone and lime. We could not fancy Chinese pagodas or even the magnificent structures of the Mohammedan conquerors of India rising in their place. And yet the only reason why not is the Graeco-Roman mould of our taste and ideas.

THE GRAECO-ROMAN TRADITION IN OUR CIVILISATION.

But it is not simply the gain we are conscious of and can clearly assess. The secret categories of our thought and the hidden moulds of our expression of it, so different both of them from the forms which are natural to a Japanese or an Arab, have come mainly from Graeco-Roman thought ; or at any rate very largely, for of course we must allow for the influence of the Hebrew in the expression of religious sentiment and for the native Teutonic strain everywhere, however much the latter may have been overlaid.

These are some of the reasons for which a knowledge of the classics, and even of Latin alone, which contains and conveys to us a great deal of the Greek culture, is of unique psychological value in a literary education. It not only gives an enlargement of mental horizon which it is not easy to find a substitute for, but it lays our fingers on the hidden keys of modern thought and art. The vital form of education is always a kind of hidden growth, that kind of growth which Wordsworth tries so hard to describe in his *Prelude*. Behind all the pedagogical apparatus with which we overlay our methods of teaching, lie the vital norms of feeling and conception, and by

these we are strongly attached to the world of Graeco-Roman civilisation. That is partly the reason, no doubt, why the day when the student first feels that a line of Virgil really shines in his mind or when he grasps appreciatively the firmly carved phrase of Horace, is so important in his literary education. He has touched a fine pulse of art in that "*Tendens Venafranosis in agros*," or that

*Hinc alta sub rupe canet frondator ad auras,*

or whatever else it may be, which never leaves him quite the same. There is something in that classical style which has the same effect on our literary sense as the language of Isaiah and Job and the Hebraic style generally have in awakening our religious consciousness.

We may no longer use the pure mould of either. The Roman mould is no longer our model as it was for the prose of Gibbon and Bossuet and for the poetry of the French classics and our own poets from Milton to Campbell. Neither are the Hebraic cry and the Hebraic cadences so often heard now in prose or verse as they are in Milton and Sir Thomas Browne. Carlyle, it is true, still has the Hebrew cadences, Arnold loves a Hebraic metaphor, and the Roman mould considerably fractured still appears as a common form of style. But as a rule we are trying now-a-days to get away from the grand Graeco-Roman and Hebraic traditions of expression and are making American briskness of speech our ideal, or attaching ourselves to other literary traditions, the unsystematised sweetness of Celtic rhythm, or the rough simplicity of Teutonic emphasis. That is all good as an effort to freshen our way of writing and escape from moulds of phrase which are rather worn. But I would not be so sure as the editor of Harper's that the "quintessential virtues of prose" are wholly of to-day. I should be sceptical of quintessential virtues unknown to the prose of Diderot and Sainte-Beuve, of Goethe and Heine, of De Sanctis and D'Azeglio, of Washington Irving and Hawthorne and Thackeray. The style of to-day is more mixed, more finical, and has a broader chord of metaphor, but it is not an improvement on theirs except in the sense in which the style of St. Augustine's Confessions is an improvement on Sallust and Cicero. It shows the breath of a new spirit and is the

vehicle of a more composite thought, but it is not more sensitive than theirs and it is far less plastic just because it is less in the great literary tradition than theirs was.

We may think that every new step we take in fields of thought and science unknown to the Greeks and Romans weakens the ties that bind us to that civilisation of theirs. Every scientific philosopher who gives us a new view of the physical universe, every educationalist who brings a new practical element into our educational system, even every new poet who deserts the classical forms of his art for a new style of irregular verse, is apt to think he is breaking entirely with the Graeco-Roman tradition. But these changes change less than they seem to do and hardly affect the deeper and more fundamental forms of the tradition which attaches us to the past. Often they only open up new vistas of our relation to it, just as the decay of dogmatic interest in the Scriptures has opened up the new fields of naturalistic interpretation in Higher Criticism. Naturalism in Crabbe and Wordsworth thinks it has banished the classic scenery and swains of the pastoral idyll, and lo ! they rise again in a new and fairer form in the poetry of Keats and Matthew Arnold. So powerful indeed are the ligaments which connect our literature and our literary instinct with those of the classical world that all violent attempts, like that of Mr. Yeats and his Celtic friends for example, to detach us from its essential forms and attach us to some other source, early Teutonic or Celtic, seem mere vagaries to us, bubbles floating past on the mighty stream of Graeco-Roman tradition. It is really the fact, though I am aware the statement will surprise many, that a knowledge of Isaiah and St. Paul, and in general of Hebraic tradition, is not more essential for the education of the religious consciousness than a knowledge of the Graeco-Roman tradition is to the full development of the literary sense. That is for us. For a Chinese or an Arab it is different. The stream of their life flows in other great traditions, Buddhistic or Mohammedan, through which they make acquaintance in their own way with the Oriental man's endeavour to keep alive his spiritual life and the special forms of the true and beautiful which express it best for him. The psychological bonds which connect us with the Graeco-Roman world are so deep and universal as almost to

escape observation. They apply to the whole range of our thinking. The methods by which Euclid and Archimedes mastered the physico-mathematical universe, the methods by which Hippocrates brought clinical medicine out of intuitional empiricism into scientific system, the methods by which Homer and Horace wrote verse, and Plato and Cicero prose, are the moulds in which our scientific and literary activity works to-day. One sign of it in literature is that there has been no great master of criticism amongst us, Lessing, Sainte-Beuve, Arnold, who was not always ready to lay his finger on the classical note in order to get, so to speak, the basic tone of the modern one and steady his judgment regarding it.

THE TRUE POLICY TO ENCOURAGE TEACHERS OF ENGLISH  
TO IMPROVE THEIR CLASSICAL KNOWLEDGE.

We see then the question which awaits our decision. Shall we discourage any class of general teachers, even our common school teachers, from seeking the vital contact with the literary tradition of our race which a direct knowledge of the classics is best fitted to give ?

I am aware, of course, that there are some educationalists who deny the value of that tradition. "We have heard of these great things," they say, "but we have never experienced them and do not credit them." And I am sorry to say such utterances occasionally come from quarters where we might least expect to hear them. The intellectual habit of such men, I have noticed, is more or less that which is shown in the frank self-revelations of Herbert Spencer's autobiography, revelations which ought to be a warning to educationalists. They may be fine writers and acute thinkers, and present an admirable example of civic virtue. But their literary sense, in the larger meaning of the words, and in some degree also their religious sense, have been atrophied. Their virtues depend upon a powerful and absorbing concentration of their faculties which we could not expect from more ordinary men.

But when the case of the teacher in our common schools is being discussed, it is usually a different and more diplomatic argument which we hear from the opponents of classical study. "O yes," they say, "a knowledge of Greek and Latin is



valuable enough, if the teacher has time to get enough of it, or capacity for that kind of culture. But the ordinary teacher who works painfully through a line of Virgil is conscious of no share in these great benefits you speak of; he never gets a glimpse in that way of your great literary heavens."

That sounds very sensible. But it is really a counsel of despair and retreat. We all know that there are some teachers who show little capacity for literature as others show little capacity for mathematics, and that there are some who have been too ill taught to make much use of the moderate amount of Latin they possess. Such teachers will not be conscious of much benefit from their classical studies. There may even be teachers who like the subject and have some capacity for teaching it, but whose enthusiasm is damped by the atmosphere of the school in which they work or by the general ignorance and want of respect for classical learning which they see around them. Naturally they soon lose faith in the value of what they have acquired. No form of education can thrive or do much good unless it is heartily supported and encouraged by the system of which it is a part.

But even under such disadvantageous conditions I think Latin is of considerable value to any teacher who has to teach the English language and English literature. It is even perhaps of more value to him than he may be aware of. It gives him in many subtle forms a better contact with literary tradition than he may have been trained to recognize. We must remember also that even a small knowledge of Latin to start with makes it possible for a teacher to go on all his life improving his knowledge of it, and improving consequently his knowledge of English literature in one of its most vital traditions. A teacher may get his certificate with a very moderate knowledge of Latin and Greek, but, if his business is to teach literature, I see no reason why he may not go on increasing it with comparative ease in connection with his ordinary preparation for the work of the class. If he finds a reference to the style of Tacitus in the English author he is reading, let him open his Tacitus and choose an example for himself and make his own observations on the subject. Both he and his class will benefit by that bit of literary study. If

he finds that the poetry of Keats or Arnold recalls the classical idyll, let him go to Theocritus or Virgil and make up his mind about the nature of that imitation and what it means. If he has to say anything about the development of the drama and its function in literature, surely a knowledge of Aeschylus and Sophocles will be of value to him, and even a little knowledge of Greek may make what he reads on the subject vital to him. But without even Latin a teacher of English is crippled in every way. How can he find anything quickening to say to his pupils on the relative uses and merits of the Teutonic and Latin elements in our English language when he is not educated to distinguish between them? By what kind of instinct will he be able to warn his pupils against a false use, common enough at the present time in many quarters, of the Latin element in our vocabulary? The only distinction to him will be that some words are bigger than others. Surely the ideal which I have indicated is the one which we ought at least to try to maintain for the general teacher. It can hardly be a sound principle because the Latin training of a certain class of teachers is defective at present and of less use to them than it ought to be, to drop that great literary subject altogether? That virtually means that we are closing the avenue which might lead them to the literary courses of the universities and forcing them, if they are to improve themselves at all, to do it in the line of science and nature study only. Or is it designed that in due time the universities also will be brought to make Latin merely optional in their literary courses? Should not the policy of the department rather be to encourage the teacher to improve his Latin than to suggest to him, as it does by this Bill, that he can do just as well without it?

THE CONFLICT BETWEEN TWO DIFFERENT  
EDUCATIONAL IDEALS.

Of course the Department knows all this, Mr. Seath does at any rate, but it finds itself in a tight place between two fundamentally different ideals of education, the literary and the utilitarian, and the different methods which belong to them. How shall we find room for both of them in the same system? That is the problem with which it is confronted. Is it going to solve it by sacrificing the one to the other? I am sure

I do not mean to undervalue the practical science, the nature study, the manual training and other new elements and methods which are being introduced into our educational system. Not in themselves. But I think the zeal for their introduction may easily become of too exclusive a character. Sometimes also it may be excessive. One may question the wisdom of many of the experiments which are being made in the United States and no doubt have an influence on our Canadian educationalists; in Chicago, for example, where schoolboys form themselves into a school government, mayor and aldermen, after the model of their municipal administration. It is a misfortune that the advocates of these new methods generally take up an attitude of active hostility towards older methods, especially towards the literary method. In St. Paul they lately established a Mechanic Arts High School on the express principle that there is "just as much intellectual discipline derived from sawing a board straight, or making a dove-tailed joint as translating a passage of Cicero or solving a problem in geometry." I quote the words on the authority of the Superintendent himself, Mr. George Weitbrecht, though that gentleman, it is fair to say, ventures to criticize the statement as "one-sided and unpedagogical." I have not the feelings of the founders of Mechanic Arts High School to consider, so I may go to the length of saying that the statement is absurd and shows a radical confusion of two distinct ends in education. You can teach a red Indian from the woods, in a week or less, to saw a board straight and make a dove-tailed joint, and it might not take very long to make him a fair carpenter. But even the founders of the Mechanic Arts High School could hardly suppose that that kind of training alone, or any extension of it, is all that is needed to make him a good citizen. But, if it is not, the question at once arises, what is the meaning and end of the other kind of education, and what are the best methods of conveying it? That question will lead us to a sphere where the principle of utility is seen in a higher aspect and where methods founded mainly on sense preception and 'concrete information' are less valuable than methods founded mainly on imaginative preception.

After all we must remember that it is by conceptual methods that we learn nine-tenths of all we know about the world and human life, and that therefore much the greater part of our daily judgment and action must be based on the training we have got in this sphere. In fact, just in proportion as civilisation rises into higher and more complex forms of social life, the general value of the observation of nature becomes less for the ordinary man in comparison with that kind of observation which works in the sphere of literary and moral conceptions. To man in a primitive stage of civilisation the observation of natural phenomena is all important and his life is guided by what he personally observes of the sun, the tides, the seasons, the woods and waters, and the habits of animals. But man in a higher stage of civilisation has less need to know these things by personal observation. They are summed up for him in almanacs and guide-books as far as his practical needs go, and I question very much if even such efficient citizens of our country as the Premiers of Ontario and the Dominion know how many hours' ebb there is when they happen to spend a week at the coast, or could distinguish any variety of the golden-rod from the *Solidago Canadensis*, though they saw it every day. Nor might they feel that their efficiency is much impaired by the lack of special training in this direction. For the man of to-day lives in a large mental area and in a complex social organism in which his general efficiency as a citizen depends more on his power of psychological analysis, his power of judging from speech and written accounts as to the nature of what is happening around him, than on his observation of the phenomena of nature. That is, it depends on a kind of power which we may call broadly the literary sense. Of course a well trained faculty in the field of natural observation is an excellent and desirable addition to the culture of any man, and for some pursuits it is indispensable. I am merely pointing out that it cannot with advantage displace literary study as a general form of training.

I hesitate to speak so much about a matter so obvious. But what is to be done when we find authorities like the Professor of Sociology in the University of Chicago, Mr. Charles Zueblin, exhibiting the same confusion of thought on

this subject as the founders of the High School in St. Paul. Here is the way in which Professor Zueblin speaks of the new methods in use in the Washington High Schools :

"The beloved domestic dog is brought into the school-room. Could the evidence of the superiority of the new methods over the old be more vividly presented than in the contrast of a beautiful Scotch collie sitting on a desk of the schoolroom, all the children enthusiastically intent on his actions, with the pathetic story of Mary's little lamb."\*

I could not easily get a better example than that to illustrate the superficial arguments by which these new educational wares are being recommended to the American public. It shows perfectly the confusion which exists in the writer's mind with regard to two different methods in education and their aims ; and it is a masterpiece of what is false and vulgar in its style of appeal on such a subject. For Professor Zueblin's argument really comes to this, that when we have brought "the beloved domestic dog" into the schoolroom and explained his qualities to the admiring children, we have made it superfluous to read such poems as Wordsworth's *Fidelity*. We have found a superior method, the method of "concrete information" and the object-lesson. Worse confusion of thought there could not be. You can do much with 'concrete methods' in science and nature study, but the unique and really valuable element in literature can be given only by the literary and conceptual method. The dramatic representation of a novel of Scott's or Barrié's, for example, may be made very vivid and interesting ; it may even be made to give striking impressions of the work which could not be got in any other way. But it is not quite a literary method in the pedagogical sense of the words ; it is a sort of a hybrid method and therefore it is a much less complete and valuable way of getting at the substance of a fine literary work than reading is. This is true even of dramas more or less designed for stage representation just in proportion as they are of value as literature. Goethe pointed that out long ago with regard to the plays of Shakespeare.

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\*American Municipal Progress.

It must be admitted that it is no easy matter for the Educational Department to find a course which is both safe and progressive, which gives the new elements and methods a fair place in the educational system without dangerously impairing the old ones. The task is heavy lies in a clear recognition of the fundamental difference which exists between the ideals of technological and humanistic or literary education, and also to some extent between their methods. We must avoid the confusion of thought which causes educationalists like Professor Ziehl to think they may easily and with advantage substitute the one for the other. If we cannot combine the two ideals in one system or as to give a proper place to each, then it would be better to have separate institutions for each. We should at least know what we are doing and where we are going. Under the present system it is largely a matter of chance whether the head of a school is a practical and literary scholar capable of giving a fair estimate of the worth of the side of a gentleman who knows the "the literary method" is superior, and that it is more important to cultivate "the much neglected sense of touch", and it than the quality which distinguishes a bird from an elm, and that the whole which enables you to appreciate the difference between the influence of Emerson or Theodore Parker, and that of the late Dr. Talmage.

It may well be said that such a system must depend on the trend which the Department is seeking to give to educational work. It may at least it suggest a true ideal of education, to distinguish between those theories and new experimental novelties which are sound in a system where technological and literary instruction are carried on together. Or it may take the opposite course. But I will not hastily conclude that it means to do so merely because it has made the mistake of removing Latin from the qualifications required of the Public School Teacher. Mr. Smith's change is certainly of an admirable quality. He must know that his conspicuous disregard of the vote of the the meeting of the Teachers Association has increased considerably his responsibility in the future of education in Chicago.

JAMES CAPPON.

Editor's Chronicle.

## BOOK REVIEWS.

*Principal Grant.* By William Lawson Grant and Frederick Hamilton.  
Toronto: Morang & Co. (Limited), 1904.

This admirably written and beautifully printed book deserves to be read by everyone who is interested in the higher development of his country. It is perhaps somewhat of an exaggeration to call Principal Grant "the greatest of the native born," as is done by a contemporary, but there can be no doubt that he was one of the noblest and ablest of Canada's sons. The preface humorously apologizes for Mr. William Lawson Grant's share in the work by quoting the opinion of a "candid friend," that "biographies written by sons are, as a rule, only one degree less contemptible than those written by daughters." There are, however, exceptions to every rule, and here we have one of them: Mr. Grant, and his collaborator, Mr. Frederick Hamilton, both loyal sons of Queen's, have written this biography with the frankness and impartiality that Grant would himself have exercised, and they have wisely allowed him as far as possible to speak for himself. Their work, in fact, is very much a biography conceived in the spirit of an autobiography, with perhaps the additional advantage of pointing out the limitations in the subject of the memoir. Thus they tell us that, "while he was a competent scholar, widely read along certain lines, and with his knowledge well under control, Grant had not the type of mind of the pure scholar." Nor was he a pure thinker. There is no evidence in the biography that he contributed anything to the solution of the fundamental problems which exercise an irresistible fascination over some minds; for those engaged in such work he had plenty of sympathy, as he had for all pioneers of knowledge, but he was perfectly aware that his own strength lay in another direction. What really took hold of him in an overmastering way was the ideal of Canada as a free, pure and enlightened nationality, standing on her own feet, and contributing her share to the support of the Empire. No doubt in this ideal was included a liberal and progressive Christian Church; but the Church itself, while in his eyes it was a witness for the things of the spirit, was mainly conceived by him as an organization for the development of the highest type of citizen. Those familiar with

It must be admitted that it is no easy matter for the Education Department to find a course which is both safe and progressive, which gives the new elements and methods a fair place in our educational system without dangerously impairing the old ones. Our path of safety lies in a clear recognition of the fundamental difference which exists between the ideals of technological and humanistic or literary education, and also to some extent between their methods. We must avoid the confusion of thought which causes educationalists like Professor Zueblin to think they may easily and with advantage substitute the one for the other. If we cannot combine the two ideals in one system so as to give a proper place to each, then it would be better to have separate institutions for each. We should at least know then what we are doing and where we are going. Under the present system it is largely a matter of chance whether the head of a school is a classical and literary scholar capable of giving a vital impulse to the work on that side, or a gentleman who thinks that "the literary method" is obsolete, and that it is more important to cultivate "the much neglected sense of touch", and to train the faculty which distinguishes a birch from an elm rather than that which enables you to appreciate the difference between the utterance of Emerson, or Theodore Parker, and that of the late Dr. Talmage.

Under such a system much depends on the trend which the Department is seeking to give to educational work. It can do much to support a true ideal of education, to discountenance crude theories and keep experimental novelties within safe bounds in a system where technological and literary instruction are carried on together. Or it may take the opposite course. But I will not hastily conclude that it means to do so merely because it has made the mistake of removing Latin from the qualifications required of the Public School Teacher. Mr. Seath's courage is certainly of an adamant quality. He must know that his contemptuous disregard of the vote at the last meeting of the Teachers Association has increased considerably his responsibility for the future of education in Ontario.

JAMES CAPPON.

Queen's University.



## BOOK REVIEWS.

*Principal Grant.* By William Lawson Grant and Frederick Hamilton.  
Toronto: Morang & Co. (Limited), 1904.

This admirably written and beautifully printed book deserves to be read by everyone who is interested in the higher development of his country. It is perhaps somewhat of an exaggeration to call Principal Grant "the greatest of the native born," as is done by a contemporary, but there can be no doubt that he was one of the noblest and ablest of Canada's sons. The preface humorously apologizes for Mr. William Lawson Grant's share in the work by quoting the opinion of a "candid friend," that "biographies written by sons are, as a rule, only one degree less contemptible than those written by daughters." There are, however, exceptions to every rule, and here we have one of them: Mr. Grant, and his collaborator, Mr. Frederick Hamilton, both loyal sons of Queen's, have written this biography with the frankness and impartiality that Grant would himself have exercised, and they have wisely allowed him as far as possible to speak for himself. Their work, in fact, is very much a biography conceived in the spirit of an autobiography, with perhaps the additional advantage of pointing out the limitations in the subject of the memoir. Thus they tell us that, "while he was a competent scholar, widely read along certain lines, and with his knowledge well under control, Grant had not the type of mind of the pure scholar." Nor was he a pure thinker. There is no evidence in the biography that he contributed anything to the solution of the fundamental problems which exercise an irresistible fascination over some minds; for those engaged in such work he had plenty of sympathy, as he had for all pioneers of knowledge, but he was perfectly aware that his own strength lay in another direction. What really took hold of him in an overmastering way was the ideal of Canada as a free, pure and enlightened nationality, standing on her own feet, and contributing her share to the support of the Empire. No doubt in this ideal was included a liberal and progressive Christian Church; but the Church itself, while in his eyes it was a witness for the things of the spirit, was mainly conceived by him as an organization for the development of the highest type of citizen. Those familiar with

his deeper thoughts could not fail to see that the name to which his whole being responded was the name of Canada. The Empire he valued as the custodian of his highest ideal of citizenship, Canada he loved as the apple of his eye. To make Canada really a nation, in all things the equal of England herself, was the mainspring of all his actions, and the secret of his attitude on all public questions. He was an imperialist because he was a patriot. It was, therefore, natural, when he saw another colony, as he believed, denied her just claim to independence, that his imperialism should give way for once to a sort of reflex patriotism. To the last he maintained that the South African War might have been avoided, though he admitted that after the insolent ultimatum of Kruger it was inevitable.

There was in Grant little or nothing of the ecclesiastic; for him one form of organization was no better than another, though it might be more suited to a particular age or to particular circumstances. His sympathies were naturally with the progressive thinkers in the Church, though even theological liberalism he valued not so much for its intellectual results as because it did not waste its energies on the accidents of public worship, but looked at men from the point of view of a broad Christian philanthropy. It can hardly be said that he had faced all the difficulties that press upon the truth-seeker of our day. The fundamental beliefs of the Church seemed to him axiomatic, and his efforts as a theological teacher were mainly limited to a liberal interpretation of them. For abstract theology he had a certain respect, but his real sympathies were reserved for great religious movements. For this reason he not only endorsed, but did much to popularize the new departure in the criticism of the sacred writings, expressing himself in public with characteristic candour when the cause was still unpopular. Especially in the interpretation of the Old Testament, where his gift of historical imagination and his intense interest in great national movements naturally came into play, his lectures and sermons were in the highest degree stimulating and suggestive.

As this biography makes abundantly manifest it is not

as a thinker, nor as a scholar, but as a moral force and an administrator of rare quality that Grant was distinguished. No man ever lived who devoted himself more unreservedly to the task that was nearest. He was not ambitious, in the ordinary sense of the term: so long as the cause he had at heart prospered, he had no desire to claim credit for it; on the whole, he rather preferred to work through others, not infrequently permitting them the satisfaction of imagining that what he had deftly suggested himself was due to their own initiative. Nor did he despise any sphere of work, however humble it might appear to others. After completing a brilliant course of study in Glasgow University, he refused the office of assistant to his great friend and hero, Dr. Norman Macleod, of the "Barony," a position in which he would at once have made a name for himself, and returned to Nova Scotia, to take charge of the little mission field of River John, consisting of a scattered highland community, so poor that they were indebted to the kindness of Methodist brethren for the very building in which they worshipped. But while he was thus untiring in his devotion to the task immediately in hand, Grant's restless idealism would not allow him to be satisfied with anything like a makeshift. He was by birth a member of the "Kirk," but on his return from Scotland in 1861, he was profoundly dissatisfied with the condition of his native church. "She was, indeed, hardly a native church at all, but rather a foreign mission, officered largely by Scotchmen, and supported in great measure by the funds of the Colonial Committee of the mother church." Against this dependency his whole nature revolted. Pauperism in a church seemed to him not less disgraceful than pauperism in the individual. Just as later he protested with all his might against the indignity of Canada contributing nothing towards her own defence, so at this early date he sought to sting the people into a sense of their meanness. "We have been too long, in matters financial, under tutors and governors; it is high time that we should begin to keep house for ourselves."

When he was ministering at Georgetown, Prince Edward Island, his second charge, an incident occurred

which is typical of the man. "Awaking one Sunday morning he found that a storm which had been raging for several days had so increased in violence that the door of the house was blocked and the roads impassable. The church was nearly a mile away, and he was urged not to venture amid the trackless drifts. But as soon as breakfast was over, the young minister was out, and after a glorious wrestle with the snow, reached the church, dripping with perspiration. There was no sign of a congregation, so he again flung himself into the drifts, and finally reached the house of the sexton. Him he aroused and sent to the church to light a fire, and then to ring the bell. Meanwhile he himself, still unwearied, toiled to the houses of the nearest parishioners, dragged them out, and having eventually collected a handful, delivered to them a long and eloquent discourse (pp. 57-8)." No wonder Dr. Alan Pollock once said of Grant: "One might as well try to sleep beside a saw-mill!"

In his next charge, St. Matthew's Church, Halifax, he found time, amidst his multifarious duties, to collect money in aid of Dalhousie University and the Pine Hill Theological College—declaring, by the way, that he would "never start another money scheme"—and to take an active part in advocating the confederation of the provinces and the union of the Presbyterian churches in Canada. What view he would have taken of the present movement in favour of a wider union of churches may be inferred from what he said in a speech delivered in 1874 before the Evangelical Alliance: "God will give us the Church of the future. It will arise in the midst of us, with no sound of hammer heard upon it, comprehensive of all the good and beauty that He has ever evolved in history. To this Church Episcopacy shall contribute her comely order, her faithful and loving conservatism; and Methodism shall impart her enthusiasm, her zeal for missions, and her ready adaptiveness to the necessities of the country; the Baptist shall give his full testimony to the sacred rights of the individual; the Congregationalist his to the freedom and independence of the congregation; and Presbyterianism shall come in her massive, well-knit strength, holding high the word of God; and when, or even before, all this comes to pass, that is, when we have

proved our Christian charity, as well as our faithfulness, proved it by "deeds not words," who shall say that our Roman Catholic brethren, also, shall not see eye to eye with us, and seal with their consent that true unity, the image of which they so fondly love? Why not? God can do greater things even than this; and who of us shall say, God forbid!"

With his acceptance of the Principalship of Queen's University Grant entered upon the main work of his life. What he has done for Queen's it would be superfluous to dwell upon in these columns. "When he came to Kingston Queen's had a staff of six or eight professors, her students numbered eighty, and the University expenditure stood at sixteen thousand dollars. Twenty-five years later the staff numbered fifty, the revenue stood at seventy-eight thousand dollars, and the students exceeded eight hundred." The real tenderness of Grant's nature was most clearly displayed in his never-failing sympathy with the students. The wisdom of his rule as Principal cannot be better expressed than in the words of Professor Cappon: "In Canada we are coming, as in the United States, to make great demands on the principal or president of a university. A mere scholar or philosopher, however great, such as used to adorn the office in the old universities of Europe, would be of little use to us at present. It is true that the principal must be something of a scholar still, or his touch with the intellectual and spiritual side of the university would be feeble and mischievous; but he must be still more of an administrator and man of business, or the whole machinery of a modern university, with its complicated and sometimes conflicting interests, is in danger of getting out of gear. But this is not all. He must be something more than the scholar and administrator combined; he must be something in the nature of a great public man with a voice that reaches the ear of the country on all great questions, always ready to lead, always ready to take the platform. Even were he to profess himself nothing but an educationist, his duties in our day, when everything must be proven to the satisfaction of a democratic and self-governing community, take him out into the public arena. It is his work at once to adapt the university to the real needs of the age, and to educate the people into a proper sense of what those needs

are. And that is a very difficult task in a time when educational ideas are so unsettled and the different relations of scientific, technical and literary education so ill-defined and so ill-understood by the public in general. He must keep his head amongst the many tempting and popular, but often superficial, theories of the day. He must hold the balance fairly between the claims of classical, philosophical, literary and poetic culture, pure and applied science, practical and professional equipment, and know how to give each its place without injury to the others; or if he does not, the university he guides will soon show in the undefined and imperfect type of student it sends forth the results of an ill-balanced ideal of education.

"In carrying out this work Principal Grant and the senate were in hearty co-operation. He had no pet subjects or theories, but judged everything with a free mind. His training in a Scottish university and his studies as a professor of divinity had given him a keen appreciation of the old arts course in classics, literature and philosophy, but this was fully balanced by his natural tendency to take hold of modern practical things and to move in the environment of his time. He liked always to be on the crest of the wave, and had more of the politician's instinct to make use of a popular movement than of the scholar's to criticize it. In this way all the different educational interests embodied in Queen's senate were impartially appreciated and very successfully harmonized by him. He managed, in spite of great pecuniary difficulties, to stimulate and develop the side of practical science in Queen's while maintaining its humanistic studies in all their prestige and vigour (pp. 453-5)."

Those who are interested in Grant's great and beneficial influence upon public affairs will find full satisfaction in the later and not least interesting chapters of this important work.

JOHN WATSON.

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*Radio-Activity.* By E. Rutherford, D.Sc., F.R.S., Macdonald Professor of Physics, McGill University, Montreal. Cambridge at the University Press, 1904.

A century ago a scientist who made an important discovery could proceed to develop it at his leisure, communicating his results to some journal or learned society at convenient intervals, while the world respectfully waited. It is different

now. A month or two after Professor Rontgen's announcement of "A New Kind of Rays" there was scarcely a Physical Laboratory in which there was not someone studying X rays. The radio-active elements, with their mixed radiations, and complicated series of decomposition products, have been studied with equal eagerness. It is therefore no ordinary triumph that Professor Rutherford has made so many of the most important discoveries in this field. It is most gratifying to Canadians that the magnificent equipment of McGill University is being used in so masterly a way in illuminating the most important problems of Physics.

In this welcome book on "Radio-activity," Professor Rutherford tells the story of these strange elements so modestly that one who has not followed his papers in the magazines will never realize the part he has played in discovering it. And it is all made so clear that one forgets the intricacy of the problem offered to the investigators of radio-active change and the novelty of the methods which had to be devised for its elucidation. Yet details are not omitted and the book is a valuable guide to the mass of facts accumulated in the four years since the discovery of radium.

We wish Professor Rutherford equal success in his future study of this fascinating subject. N. R. C.

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*Control in Education.* By George F. Wilkin, Ph.D. New York, A. C. Armstrong & Sons, 1904.

The aim of the author is "to get at the *facts* that constitute social control," the term "social control" being used in the sense of the force or agency that proximately determines the existence of a progressive social order. "Recognizing in society . . . both a necessary order and a necessary progress, I desire to indicate wherein the essential nature of that progress consists; meantime however, having special reference to the means by which they are to be conserved and promoted."

The world is the result of an evolution which has manifested itself in a uniform tendency to order and progress. Passing through the earlier stages of cosmic development, in which the controlling principles have been successively

gravitation, chemical affinity, and life, we come finally to the rational will of man, which is the controlling principle of evolution at the present time. It is this form of control which must receive the main consideration in any real attempt to solve the problem of evolution. The defect of most sociologists is that they fail to recognize the importance of this fact. Herbert Spencer, for example, "has given us a biological sociology explaining the phenomena of society by the analogies and laws of animal life, and practically denying the power of the human will to modify the evolution of society to any considerable degree. It would be precisely as reasonable to explain chemistry by the laws of physics, or life by chemical analogies." A *new* power has come into the world with the dawn of human reason, and it is this power—the rational will of man—which is the latest and highest form of evolution, and controls its direction.

The life of the individual or "socius" is an evolution within the higher evolution of society, in which both advance to a higher form of rational self-determination. But early in the history of man "the rational will characteristic of humanity was dragged from its primal dignity and made the minister of our lower impulses." Thus there was implanted in human nature the germ of evil, the abnormal development of which gave rise to a "counter-evolution." Thus "reason as sovereign power" became divided against itself, and we have the war of good with evil, the outcome of which is the great problem of evolution.

The greater part of the work is devoted to showing how evolution must ultimately triumph, and to pointing out the conditions, (1) human, and (2) supernatural of such a triumph. Throughout, the chief aim has been to demonstrate the claims of evangelical religion, by showing the essentially scientific nature of Christianity. The desire to interpret Christianity in the light of science is highly commendable, and although the attempt of the author can scarcely be said to be entirely satisfactory, there is, nevertheless, in the work as a whole much that is interesting and suggestive.

J. M. McEACHRAN.



## CURRENT EVENTS.

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### THE RUSSO-JAPANESE CONFLICT.

**T**HE results of a war between two great Powers are apt to take the world by surprise. They generally reveal a hidden growth or decay of national force which men hardly suspected before, or at least did not estimate properly. The Austro-Prussian war, which ended in Sadowa, was a seven weeks' triumphal march for Prussia. The Franco-Prussian war destroyed in a fortnight the prestige of a nation which till then had been accounted the greatest military power of Europe. The conflict between China and Japan ended in the speedy downfall of a colossus which some people, even great military authorities like Lord Wolseley, thought might soon terrorize Europe. And now comes the Russo-Japanese war with its surprises to show us once more how little men in general are able to gauge the real growth or decay of the social forces around them, especially that which is caused by the influence of new ideas and the use of new methods.

The estimate of a certain class of thinkers, in particular, who depend too much on external comparisons of a statistical, economic character, are frequently falsified. Magnitude and material resources are not everything even in our time. It was not so long ago that our modern sage, Mr. Andrew Carnegie, was telling us in big type that Russia was the most powerful nation on the earth, with the exception of the United States of course. Her glory was to dim that of the German and the British empire alike. The Czar was one of the very greatest benefactors of the human race that had ever lived and had, along with President Roosevelt, "pronounced the coming banishment of earth's most revolting spectacle—human war, the killing of man by man." That of course referred to the part he had taken in establishing the Hague tribunal, a court which does not seem to be of any use even in helping to settle international questions of contraband. Mr. Carnegie, no doubt, knew very well what is commonly known about Russia, that the bureaucracy which rules it is corrupt, as Mr. Carl Joubert says, from the Baltic to the Yenisei, and that the immense ma-

jority of its population consists of a primitive peasant folk, very unapt to learn the use of machinery on which modern effectiveness depends; he must have known that there is neither liberty of speech nor of assembly in that great empire, and that the way in which its rulers treat subject nationalities like the Finns and Poles does not very well agree with the blessing which he pronounces on the Czar as one of the greatest philanthropists the world has ever seen. But Russia is big, very big, and there is great mineral wealth in the Ural mountains suggesting future steel industries, and that is enough to make this prophet of our iron age raise his hands in benediction.

I do not think Mr. Carnegie had in his mind at all some real virtues of the Russian people, the simple, tender-hearted pieties of its peasant folk, the sad sincerity of its great writers, its Tolstois and Gorkis, the subtle depth and delicacy of art in a Tourgenieff or a Rubenstein, the self-devotion of its reformers, which is naturally frenzied because it is so hopeless. Mr. Carnegie probably knows and cares little about that side of Russian civilisation and would be much surprised to learn that it produces greater art and literature than the United States now does with all those fine public libraries. He would not comprehend that the influence which he and his like have in American life destroys the atmosphere in which great art or literature could exist. That is the kind of twentieth century magnate we have, who, I hope, has still greater surprises in store for him than this of the Russo-Japanese war.

It was natural enough, however, as far as Japan was concerned, that all Europe and America alike should be rather unprepared for the tremendous display of modern efficiency which Japan is making in the present war. We knew the Japanese were learning the scientific and industrial methods of the West, that they were sending their young men to the universities and technical schools of Great Britain and Germany and the States. But we really knew little about them and many thought their efficiency was only a superficial imitation of European civilization, as perhaps that of the modern Hindu is. We are really surprised to find in an Oriental nation the deeper qualities which we imagined were the exclusive possession of Western peoples, great capacity for organization, scientific

calculativeness, courage in facing odds and tenacity in conflict. And along with these the Japanese have certainly in a high degree the native qualities of the Oriental, his patient cunning and his mask, and the minute diligence of the Mongol which can grow three blades of grass where the European can grow only one.

War between two powerful nations is a game in which every ounce of moral force in each is eventually thrown into the scale and makes the result, where the combatants are at all on equal terms, something of a moral judgment. Honesty in training and preparation tells everywhere, from the appointment of a general to the way in which a subaltern or a private has learned to do his duty. Military efficiency cannot easily rise higher than the general standard of efficiency in the people and its government, and behind all these must be the deep reservoir of the national conscience, of the nation's faith in its destiny and religious acceptance of its tasks. Even a positivist philosopher like Herbert Spencer could discern that the strength of an army is the strength of those who must stay at home.

We know yet too little of Japanese civilization, in its spirit, to understand the secrets of its strength. It seems to us to be full of anomalies, of qualities which could not exist amongst us in the same combinations. It is not easy for an Englishman to understand a nation that maintains the publicity of the Yoshiwara district and yet has a delicate moral contempt for the Christian missionary who eats three hearty meals a day, or perhaps four. It takes a Buddhist to do that. And what could a modern American make of a people that combines ancestor worship with up-to-date methods in war and industry? Perhaps Fionna Macleod, whose fancy hears the voices of the ancient Gael in the winds that blow round the ruins of Iona, might understand that depth of reverence for the the past. But a modern American could not. Mr. Carnegie could not. To him it would seem quite incompatible with the spirit of modern progress. But it does not seem so, evidently, to the Japanese, and that fact might make us suspect that there is a breadth of moral chord in their civilization which is unfamiliar to ours.

Perhaps there is something in the extreme rapidity of Japanese development which partly accounts for the surprising energy which he shows. A generation ago a feudal state in mediaeval armour, to-day in all the panoply of modern science and methodology. The Jap stands astride of two different phases of civilisation and draws strength from feudal loyalty and devotion as well as from modern science. Fancy the clansmen of old Glengarrys and Lochiels with guns of seven mile range and using the field telegraph. You cannot, and therefore you cannot yet focus the Jap in your mental vision of him.

There may be some weakness, also, in this surprising development which we shall learn, perhaps, before all is over. But there can be no doubt at any rate about the martial virtues and military abilities of the Japanese. A year or two back all our military critics were telling us that to carry a position defended by modern fire-arms required the attacking force to be at least four times the number of those defending it. But from the Yalu to the Liao-Yang the Japanese have often successfully stormed the Russian entrenchments and always succeeded in forcing the Russian positions with troops not so very much greater numerically than their opponents. Some critics seem to be in doubt as to whether it is the Russians or the Japanese who are winning the strategical honours. Kuropatkin is certainly entitled to the praise of manœuvring excellently in retreat, and it is remarkable how indecisive in some respects a modern great battle may be with the power which long range artillery has of checking pursuit. But in the meantime the Russians are losing Manchuria and allowing the Japanese to get possession of a long frontier conterminous with that of China. That is an advantage for the Japanese which can hardly be over-estimated if the struggle prove to be a long one and the last cards have to be played on each side. It means that the immense resources of China in the way of supplies and materials are readily at the command of the Japanese, and it may mean that a large and friendly army is covering their flank and threatening any future advance of the Russians on that line. The spectacle of the Russian army being driven from position to position by the soldiers of the Mikado was of course a great triumph for the yellow race, though we have to remember that

Kuropatkin from the nature of his position had always to fight with both eyes on his line of retreat. His retreats hitherto have been too orderly and too successful to be those of a general who has waited for the last chance to declare against him. It must require a cool judgment and splendid nerve to do it as he does it. But the abandonment of Lio-Yang, with its strategic position and circle of fortifications, is, like the isolation of Port Arthur, a point definitely scored in favour of the Japanese.

The policy of the Japanese, as far as the campaign on land is concerned, is evidently to force the fighting and spend their own resources, both in men and material, freely as long as they can also destroy something like an equal proportion of those of the enemy. The result will be to weaken Russia appreciably as a prospective ally should other powers think of entering the conflict. As to the relative power of the two to stand the strain, it may be a question whether an immense and sparsely populated territory like Russia, or a small and densely populated one like Japan, is best able to bear it, up to a certain point at least. There will probably be less waste in the use of Japan's resources. Russia has millions of hardy peasants to draw soldiers from, but it requires time and training to make a modern soldier out of such primitive material, and the thoroughly modern character of Japan's army renders any but trained and intelligent battalions of little use.

#### THE CRISIS IN THE FREE CHURCH OF SCOTLAND.

The decision of the House of Lords has handed over twenty million dollars of church property to a few rural Highland ministers and their congregations. These are the remnant of the "Highland Host," as it used to be called, which has always refused to go with the vast majority of the Free Church in its later abandonment of the principle of establishment, the principle that it is the duty of the State to maintain the Church. It is true that principle was not at first repudiated by the men who left the Established Church at the disruption of 1843. On the contrary it was affirmed by them. The words of Dr. Chalmers' address as Moderator—an address which was unanimously adopted by the Assembly of the new Free Church—leave no room for doubt. "Though we quit the establishment," he

said, "we go out on the establishment principle. . . . we are the advocates for a national recognition and a national support of religion, and we are not voluntaries." What they objected to was the interference of the State in spiritual matters.

The Highland Host, moreover, adheres to the Calvinistic doctrines of the Westminster Confession in all their strictness, and maintains that the majority of the Free Church in entering into union with the United Presbyterian Church (thus forming the new United Free Church) necessarily and openly abandoned not only the principle of establishment, but also the Calvinistic doctrine of predestination. For neither the one nor the other belong to the creed or the teachings of the United Presbyterian Church.

The Law Lords of the Upper House found that the Highland ministers and their congregations were right in point of fact, as everybody knew they were. The real question at issue, therefore, was, has a church the right to change its creed and at the same time continue to enjoy those properties and endowments which were originally given for the purpose of maintaining that creed? A very delicate question, you see, for the legal and philosophical mind, involving many contingencies and much complexity of outlook. The court decided this legal point in the negative, the Lord Chancellor laying down the principle that "though a body of men calling itself a Church might change its doctrine, there is nothing that exempts it from the legal obligation that money given for one purpose shall not be devoted to another. Accordingly the Rev. Murdo Macqueen, Moderator of the "We Free," and his 26 colleagues, became the legal owners and managers of all the buildings, lands and money which the Free Church owned in 1900, when it entered into union with the body of United Presbyterians. Very few of some 1100 ministers of the old Free Church have churches or manses from which they may not be ejected as soon as the "Wee Free" chooses to exercise its right of possession.

A decision which startles a whole nation and shocks its sense of equity, as this decision has done in Scotland, a decision which could not be carried out without becoming a kind of national calamity and cannot in fact be fully carried out at all, is not a very wise decision. A gentleman from

Tokio might reasonably come to the conclusion, after reading the judgment of the Law Lords, that nothing had been changed in the views we and our churches hold about creeds since the date of the Westminster confession. He might very well infer, for example, that the ministers of the Church of Scotland still consider themselves bound to preach the doctrine of predestination, as it stands in the Westminster Confession. That is the legal and official fiction on which their Lordship's judgment is based. But all Scotland knows what the reality is and is shocked, therefore, to find that a legal fiction is capable of bringing about something like a national catastrophe.

The other principle also, on which the decision rests, seems to be applied in a rather strict and narrow way. A church according to the Lord Chancellor, may change its doctrine as much as it likes but the money bequeathed to it ceases to belong to it if it alters its doctrine, because the purposes of the benefactors are supposed to be nullified. It is of course a great prudential maxim that endowments are not to be diverted from their original purposes, but like every maxim it often requires to be wisely modified in its use.

How often in the case of educational or charitable institutions has that been done with the sanction of the law, even in the face of protests from those who could show their "identity with the original beneficiaries?" Are the Universities of Oxford and Cambridge still distributing their ancient benefactions strictly according to the intentions of the donors?

The judgment of course, overlooks loftily the numerical difference between the 1100 ministers who went into the union and the 27 who did not. It would have been just the same if the appellants had consisted only of the Rev. Murdo Macqueen and his bethel. But the practical sense of the nation does not overlook this fact. In all its bearings the case is one in which we should have expected a High Court of Equity like the House of Lords to have mediated more successfully between the fixed exceptions of law and what the common sense of our age requires. Nothing is more familiar to our generation than the idea of the necessity of evolution in connection with all our institutions. It has become a popular category and is

in constant use. Yet this decision, under cover of a legal fiction, flouts it. Although we live in an age when changes of this kind have become evident to everyone and are universally accepted as a law of life and vital growth, yet this high seat of judgment, this ultimate court of appeal pretends not to see them, in fact declares they do not exist. That might do very well for a Sheriff's Court or even a Lord Ordinary's, but it is too artificial for the highest court of the realm engaged in determining the constitutional rights of a great church. The cautious conservatism of the English mind is seen in the judgment, but it is certainly not seen to advantage.

Talk about change or evolution, the Free Church has been a remarkable example of it. Thirty years ago it was perhaps the most austere of the churches in doctrine and practice alike. It ejected that brilliant exponent of the higher criticism, Dr. Robertson Smith, from its theological halls. But since that time some of its prominent men have become widely known as the most liberal theologians in Scotland. And to-day even its cautious veteran leader, Dr. Rainy, in his criticism of the decision of the House of Lords, is bold enough to express himself in the following manner: "The idea of a church held absolutely and forever by the faith of men who died 200 or 250 years ago was simply to be denounced as thoroughly ungodly." There might have been a second 'Disruption,' if some of the departed brethren, Dr. Begg for example, had heard him treat the Westminster Confession that way.

#### MAETERLINCK'S NEW VOLUME.

Maeterlinck's last volume, *The Double Garden*, is characteristically modern in its range of themes and his manner of treating them. Bees, wild-flowers, chrysanthemums, the modern drama, universal suffrage, the ethics of duelling, driving an automobile, nothing seems alien to him, he has the real secret of it, no frigid external knowledge, warmed up with picturesque or rhetorical commonplaces, but an intimate vision of it illumined by a philosophic originality of thought. He often takes his materials from the observational sciences and nature study, and generally from the common stock, but always adds a little bit of his own that is curious and exquisite.



But his general treatment is of the literary and philosophic kind, and has a happy power of making things show how they contribute in hidden ways to the spiritual life of men. His estimates are always new and profoundly modern in their sympathy with all new activities. But they are never crude or forgetful of the fact that there is a standard which must not be surrendered to any exigency. There is a fine breadth, for example, in his description of the fundamental tendency of our age to work out its problems untrammelled by the traditions of the past. You might think he was speaking of the American nation in particular.

For centuries, mankind has in a measure lived in a half-way house. A thousand prejudices and above all the enormous prejudices of religion hid from it the summit of its reason and of its feelings. Now that the greater number of the artificial mountains that rose between its eyes and the real horizon of its mind have, in a marked manner subsided, it takes stock at once of itself, of its position in the midst of the worlds and of the aim which it wishes to attain. It is beginning to understand that all that does not go as far as the logical conclusion of its intelligence is but a useless game by the way-side. It says to itself that it will have to cover tomorrow the road which it did not travel today and that in the meantime, by thus wasting its time between every stage, it has nothing to gain but a little delusive peace. . . . Thanks to that self-enlightening instinct, there is a more and more unanimous tendency to stop no longer at intermediate solutions, to avoid henceforth all half-way experiments, or at least to hurry through them as rapidly as possible."

Our Froebelite friends and the new school of educationalists may take comfort from that, if they have any secret doubts of themselves. But Maeterlinck is quite aware of the evils we we shall encounter on this path. In the following passage he is speaking of the principle of universal suffrage and is thinking no doubt of the attacks which are being made on it at present in Germany, but his words have a wider application :

"Almost everywhere, in obedience to the now so active law that carries us to extremes, men are hurrying along at full speed the sooner to reach what appears to be the last political ideal of the nations, universal suffrage. Since this ideal completely masks the better ideal that probably lies hidden behind it, and since it does not appear what it perhaps is, a provisional solution, it will, until we have exhausted all the illusions which it contains, hold the gaze and wishes of humanity. . . . Like every universal and imperious ideal, like every ideal formed in the depth of anonymous

life, it has first of all the right to see itself realized. If after its realization it should become apparent that the ideal does not fulfil its promise, it will then be meet that we should think of perfecting or replacing it.... That is why, full of the duty of living, this ideal is most justly jealous, intolerant and unreasonable. Like every youthful organism it violently eliminates all that can impair the purity of its blood. It is possible that the elements borrowed from monarchy and aristocracy which men endeavour to introduce into the adolescent veins are excellent in themselves; but they are injurious to it because they inoculate it with the ill of which it has first to be cured. Before the government of all can be made wiser, more limpid and more harmonious by the admixture of other systems, it must first have purified itself by its own fermentation. After it has rid itself of every trace, of every memory of the past, after it has reigned in the certainty and integrity of its force, then will be the time to invite it to choose in the past that which concerns its future. It will take of this according to its natural appetite, which, like the natural appetite of every living being, knows with a sure knowledge what is indispensable to the mystery of life."

That is delicately and forcibly said, and it is in some such temper no doubt that one must look on many of the phenomena of American democracy. It is in some such temper, for example, that we must listen to Harper's clever editor when he tells us, as he did last month, that the present condition of literature leaves nothing to be desired, that "the satisfaction which we derive from the masterpieces of the past is so complete that we do not hunger for their repetition in the present," and that the capacity to read Maurice Hewlett and Mrs. Humphrey Ward is "a satisfactory test of the intellectuality of the age." But Harper's editor does not by any means belong to that "inconscient mass" that Maeterlinck speaks of as knowing no standard but that of their own performances. There is at times, as you can see, a tincture of ironical reserve in his sentences. He is the new, finely bred courtier of the democracy, who bows and smiles and makes his compliments at the court of King Demos, with as good a face and as supple a back as a different species ever did at Versailles.

There is, however, something of the new fatalism so characteristic of modern thought, and something also of the new mysticism, in Maeterlinck's way of looking at our democratic evolution. In a highly critical and self-conscious age like ours the logical development of a defective principle

will hardly go quite so far. Men cannot be fully conscious of an evil and make no attempt to save themselves from it. It is only some unsuspected, unquestioned form of error that can lead a whole age astray and work itself out to a logical end.

There is a vein of mysticism, as I have said, in Maeterlinck's thinking. It arises from his way of idealizing and imaginatively extending what he sees of the harmonies of scientific evolution in the universe. But even when his thought runs farthest into a region of fancy and fine transcendentalism there is always some large reality hovering near. It is always something new and universal in the domain of real experience, which is seeking expression in that intellectually brilliant and fascinating way he has of presenting things. His style, too, plays a great part in the effectiveness of his work. It can give the subtlest vision and the largest philosophic abstractions of thought a rounded and luminous shape in the reader's mind. In the middle region of critical and reflective prose it is still a very beautiful and sensitive medium, but when he comes to describe plainer matters, the ordinary realities of sense-impression, he gives us an over-decorated surface. The habit of carving out splendid shapes for the imagination is too much for him.

#### IMPERIALISM IN THE THE UNITED STATES.

It looks as if a new issue might establish itself between the two great political parties in the States. In his speech accepting the Democratic nomination for the presidency, Judge Parker attacks in general terms the new ideal of the States as a world-power, ready to accept responsibilities, and play an effective part in international questions, "I protest against the feeling, now far too prevalent," says the Democratic candidate, "that by reason of our commanding position we must take part in the broils and disputes of foreign countries, and that because we have grown great we should intervene in every important question that arises in other parts of the world." A certain section of the Democratic press, also, is fairly unanimous in representing President Roosevelt as an Imperialist swash-buckler, to whom it is unsafe to entrust the destinies of the country.

But even amongst Democrats there is an Imperialist party, and it is obvious that Judge Parker is very cautious about entering into details or stating precisely what President Roosevelt has done that he himself would not have done. This is where Roosevelt in his letter accepting the Republican nomination, scores easily against his opponents. He takes his stand boldly on an Imperialistic conception of the duties and interests of the United States, which he evidently feels to be that of the great majority of his countrymen. "Do our opponents," he asks, "object to the fact that our flag now flies over Porto Rico? Do they object to the acquisition of Hawaii? . . . . Do they object to the part we played in China? Do they not know that the voice of the United States would now count for nothing in the far East, if we had abandoned the Philippines and refused to do what was done in China?" He means of course that the position which the nation acquired by that line of action, has not only made it powerful to protect its own special interests in the far East, but to promote those general ideals of peace and justice for which it stands. The President concludes this part of his speech by declaring that "our foreign policy has been not only highly advantageous to the United States, but hardly less advantageous to the world as a whole. Peace and good will have followed in its footsteps." I believe that last statement to be true as a whole, in spite of the occasional flourishing with 'the big stick,' and that the balance of power which is wielded by the States helps to promote peace and justice in the world.

Both on the lower and higher principles, then, by which you may judge President Roosevelt's policy, it appears to be a sound one. If you have commercial interests in distant regions where other Powers are also seeking to plant themselves and even secure exclusive rights, you can protect these interests only by taking an active and responsible part in international questions. In any case the idea is obsolete that a great nation like the States can decently stand aside and refuse to take its share in those international councils which now virtually control and guide the destinies of the human race, which at least limit the area of war when it is unavoidable and impose, more perhaps than quite appears on the surface, laws and bounds on

its ferocity. Such a doctrine is out of harmony with our modern conceptions of world-life and its evolution, as indeed is most of the political science of the Manchester School to which it belongs.

On the old question of the tariff the President speaks with not less decided a voice in favour of a protective policy. "The question of what tariff," he says, "is best for our people is primarily one of expediency, to be determined not on abstract academic grounds, but in the light of experience. . . . Our experience as a people in the past has certainly not shown us that we could afford in this matter to follow those professional counsellors who have confined themselves to study in the closet; for the actual working of the tariff has emphatically contradicted their theories. . . . It is our economic policy as regards the tariff and finance which has enabled us as a nation to make such good use of the individual capacities of our citizens and the natural resources of our country. Every class of our people is benefited by the protective tariff. The wage-worker would do well to remember that if protection is 'robbery' and is to be punished accordingly, he will be the first to pay the penalty; for either he will be turned adrift entirely, or his wages will be cut down to the starvation point."

We must remember that these words are spoken by the head of the greatest and largest industrial nation in the world, that for this reason as well as others the teachings of commercial experience are written there in larger and more unmistakable letters than anywhere else.

But the President need not have gone out of his way to flout the professors of political science as doctrinaires. They, too, seek to read the facts in "the light of experience." At least they think they do, though possibly too many of them, when they must make a choice, prefer to change the facts rather than change their theories of them. That is a weakness, however, which is not confined to a class.

JAMES CAPPON.



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### A CHAPTER IN ANCIENT ASTRONOMY.

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There was a time when meadow, grove and stream,  
The earth and every common sight to me did seem  
Apparelled in celestial light,  
The glory and the freshness of a dream.  
It is not now as it hath been of yore :—  
Turn wheresoe'er I may, by night or day,  
The things which I have seen, I now can see no more.

— *Wordsworth.*

**T**HE child spends his years in a sort of dreamland where everything is enshrined in the wonderful mysteries born of ignorance and haloed by the brightness of a young and vigorous life. But to the man of maturer years, and of thoughtful mind, although new mysteries spring unending from the study of nature in her more retiring phenomena, yet those which were of most interest to the child have become familiar and common-place; and what is true of the individual is to a large extent true of the race.

To primitive man without scientific knowledge every phenomenon of the universe was so enveloped in wonder and mystery as to be looked upon with a sort of religious awe, and to be explainable only through the machinery of the gods.

To modern man, with his science, the beauties and wonders of the universe have increased rather than decreased; but its mysteries are such only because they are not yet fully fathomed, and his mode of explanation is through the natural rather than through the supernatural.

Early man, living, as he probably did, in a temperate or warm climate and under the open sky, must have been strongly impressed by the nightly pageant of the stars. Coming in with the approach of darkness, the mighty phalanx began its procession from east to west along the pathways of the skies, being led, as a ram leads his flock, by the principal star or

groups of stars which first in the evening made their appearance above the eastern horizon. Others of the starry host performed their journeyings about the elevated pole and neither rose nor set, but ceased to shine only when obscured by cloud, or quenched in the superior brightness of the rising sun.

And then the leader in this march of the stars was changed from month to month, and from season to season, one constellation after another assuming the role, until after a certain lapse of time the first leader appeared again at his post, and the circle of the year was complete.

Primitive man must have desired to know the secrets involved in the eternal and silent movements of the heavens, and he must have striven hard to read into the apparently arbitrary stellar motions some order and purpose and intelligence.

For the stars were practically the same to the first man who ever gazed upon them and thought and reasoned about them as they are to us. The grand constellations of the Great Bear, of Cassiopoea, of Perseus, of Orion; the brilliant stars Vega and Denib and Arcturus and Capella were his nightly companions, as they are ours.

All of these must have been to him, even more than to us, objects of beauty and wonder. And any man of to-day who can, on a brilliantly star-lit night, look upwards to the southern sky and to the grand constellations of Taurus and Gemini and Orion, and to the Pleiades and Aldebaran and Procyon and Sirius, and not be moved to admiration at the magnificent but silent pageant, has nothing in his soul that answers to a sense of the poetic or the sublime.

And then the moon must have been an object of very great interest to all primitive people. Her continuous passing from place to place in the heavens and her changing relations in regard to the sun and to the day and the night, and her ceaseless transformations from a slender crescent in the western evening sky, through the full orbed planet bathing the earth with its silvery light, to a similar but inverted crescent calmly floating in the roseate hues of the early morning, must have been to them a continual source of wonder and mystery. The moon gave to the earliest astronomers the division of the year into twelve parts called months, and she belted the heavens with



the twelve corresponding signs of the zodiac. Amongst the oldest people of which we have any account the moon was an object of worship. In her first appearance in the west, after her seeming death, they saw a veritable new moon, and her advent was greeted with appropriate ceremonies, whose echoes still are heard amongst some of the simpler people of the world.

But what of the sun, the overpowering sun, the very type and acme of glory, compared to which every other visible thing in the universe is really insignificant—the sun, which to us, as to primitive man, is the giver of health and strength and life to every living creature, and from whom comes everything necessary to our bodily existence.

Can we wonder that a primitive people, ignorant of the real nature of his mighty orb, should worship the sun and look upon him as a god? Sometimes, after a long period of storm and gloom, and when the soul grows sick for the want of warmth and brightness and cheer, if then the sun breaks forth in his strength and dispels the mists and the watery clouds of heaven, we feel almost like worshipping him ourselves.

The ancients, who to any considerable extent had risen above primeval savagery, saw and noted the apparent changes which go on in the visible heavens. They observed that the movements of sun, moon and stars went on as if under the influence of life and intelligence, and that these movements were far beyond the reach of all human power, alike indifferent to man's hopes and fears, to his joys and sorrows, and to his petty wars and struggles for power and possession. Naturally then, in their ignorance they gave to these bodies the attributes of superior beings, or gods; although to what extent they really worshipped them, in our sense of the word worship, it would be very difficult now to determine.

In this manner it came about that with all the very ancient nations, the Sumerians, the Babylonians, the Egyptians, the early Greeks, the Hindus, &c., their mythology and their astronomy are so interwoven as to be practically inseparable, and very many of their legends, whether of gods or heroes, grew up around an astronomical nucleus, and were more or less personifications and living pictures of changes going on in

the heavens and the earth, and of the forces and influences which produce these changes, and in some cases even of outside phenomena attendant upon such changes.

Max Muller speaks of the Aryan race, our presumable forefathers, as "those people who, as we now learn from the Vedas, at the rising and setting of the sun, listened with trembling hearts to the sacred songs chanted by their priests." And the following hymn to the Dawn, personified as bringing in the light and the opening day, is singularly beautiful.

"She shines upon us like a young wife rousing every living being to its work ; when the fire had to be kindled by men she made the light by striking down darkness.

She rose up spreading far and wide and moving everywhere ; she grew in brightness, wearing the brilliant garment of the mother of the mornings, the leader of the days ; she shone in golden-hued robes lovely to behold.

She the fortunate, who opens the eyes of the gods, who leads the white and lovely steeds : the Dawn stood revealed by her rays, with brilliant treasures following every one.

Thou art a blessing when thou art near.

Raise up wealth to the worshipper thou mighty Dawn ; shine for us with thy best rays thou brilliant Dawn, thou daughter of the skies, thou high-born Dawn."

Until after the middle of the last century our knowledge of the early astronomy was very limited, and what men thought they knew upon the subject was to some extent a matter of conjecture.

But in comparatively recent times the mounds which strew the ancient Babylonian plains, and mark the sites of cities which once were, have been made to give up their secrets.

Large quantities of veritable books, in the form of clay tablets inscribed with cuneiform characters, have been resurrected from these ancient treasure-houses. These earthy volumes have thrown a great deal of light upon ancient Sumerian and Babylonian customs, and still more upon the character of their religion and astronomy. For these ancient people were permeated by their astronomical religion, and were surrounded by gods and heros, and practised forms and ceremonies in large numbers.

They knew of the seven moving bodies of the heavens, the sun, the moon, mercury, venus, mars, jupiter, and saturn, for to them the earth was the centre of all and the type of immobility.

They had their week of seven days corresponding to these seven moving heavenly bodies, and one of these days was given to rest and fasting.

But the astronomical records of Egypt are fuller and more interesting than those of Babylon, even if they are not so easily read or so directly interpretable. The monuments of Babylon have perished one by one, and it seems to be by a sort of happy accident that her frail clay tablets were saved in such numbers from the midst of her general ruin. But the Egyptians recorded their astronomical mythology not only in pyramids and huge temples which yet remain in some considerable state of preservation, but also in hieroglyphs and sculptures and painted drawings hidden away in their cities of the dead.

From these sources we have learned something about their gods and about their worship.

That the Egyptians had numerous gods is well established, but from some of their statements there are strong reasons for supposing that many of the inferior gods were but personified attributes of one great divinity. And like those of the Babylonians, the deities of Egypt were mostly stars of the heavens or personified astronomical phenomena connected with the heavens and the earth.

Thus the sun was worshipped under a variety of names, referring to his different aspects or to his influences at certain seasons, and in his representations he was figured in an equal variety of forms. At Thebes his general name was Ra ; but the rising sun was Horus, the sun at the autumnal equinox was Chemnu, the sun in the lower world, Osiris, who presided over the region of departed souls. Thus not only was their mythology exceedingly complex, but their knowledge of the motions of the heavenly bodies was considerable.

Here are a few extracts from their hymns to the sun :

"Thou disc of the sun, thou living god ; there is none equal to thee. Thou givest health to the eyes through thy beams, creator of everything. Thou goest up on the eastern horizon of the sky to dispense life to all that thou hast created—to man, four-footed beasts, birds, and all manner of creeping things on the earth where they live. Thus they behold thee, and they go to sleep when thou settest."

Again,

"Come to me Oh thou Sun, Horus of the horizon give me help ;  
Oh, Horus of the horizon there is none other beside thee, protector  
of millions, deliverer of tens of millions.

And again,

"Hail to thee of the double horizon, maker of heaven and of the  
mysteries of the two-fold horizon. Oh Ra radiant in thy disc shin-  
ing forth from the horizon."

And here follows a translation from a Babylonian hymn :

"Oh sun-god ! on the horizon of heaven thou dawnest,  
The bolt of the pure heaven thou openest,  
The door of heaven thou openest ;  
Oh sun-god ! thou liftest up thy head to the world,  
Oh sun-god ! thou coverest the earth with the majestic brightness of  
heaven."

The attention is naturally drawn to the continual reference to the horizon and to the rising of the sun, and even to the double, that is the eastern and the western horizon. The worship of praise is accorded to the sun, to Horus, to Osiris, to Ra, on the horizon only ; and what is the explanation ? There are probably two explanations.

To all ancient people with but the crudest and most meagre sources of artificial illumination, and surrounded by enemies and dangers of which we have no experience, the night was a veritable type of death. When the sun sank below the western horizon he went down to death and left the whole world in the shadow of the king of terrors. It was by night that beasts of prey pounced upon their unwary victims, and enemies equally blood-thirsty made stealthy raids upon the quiet village ; and it was by night that ghosts and goblins wandered from the spirit land, and all the fears and superstitions of the people assumed full control.

Out of this darkness and death the sun was born to a new life when he rose from the eastern horizon dispelling the phantoms of the night, and opening a new day for life and work and enjoyment.

There are two singular occasions in the life of every person —when he is born into the world and to all the possibilities of an opening and expanding life, and when he bids an eternal farewell to all his friends. So the rising and the setting of the sun typified the beginning and the end, not only of individual life, but of all life, and thus became the momentous phenomena in his daily course.

And these ancient people made no compromise between the day and the night as we do ; they divided each into twelve hours, making their hours longer or shorter to suit seasonal requirements.

Again, amongst ancient people the Egyptians distinguished themselves by their determined and successful struggle to bring order out of confusion, and to preserve a reliable record of their times and seasons. Everything in their calendar had to be determined, then as now, by observations on the motions and places of the heavenly bodies.

In the British nation this kind of work is relegated to the Admiralty ; but in Ancient Egypt it formed a part of the religion of the nation, was under the direct supervision of the priests, and was assented to by the Pharaoh and all his people. But they had no telescopes as we have, and no facilities for making observations upon bodies high in the heavens. Their only method then was to observe the heavenly bodies at their rising and their setting, that is, upon the horizon.

For this purpose they constructed huge telescopes in the form of temples dedicated to some astronomical divinity and oriented to some particular point.

One of the great problems which confronted early civilized man was to determine the length of the year. The seasons always return in proper time and follow one another in their proper order. But the character of any particular season is too variable and uncertain to be of any use in giving the length of the year, and it would require one to take the mean of a thousand returns of summer or winter, at least, to obtain even a fair approximation. And unless the length of the year is properly determined, the seasons will in time travel around the whole yearly circuit. This was the case with the vague year of the Egyptians which consisted of 365 days. Being too short by nearly a quarter of a day, the seasons completed the circuit of the year in about 1460 years, which they called the sothic year or sothic cycle.

Thus, the first of the month Thoth came at one time in midsummer, and 730 years after in midwinter. How the Egyptians came to fix upon this vague year is not known, but they seem to have been acquainted with the fact that 1461 of

their vague years is very nearly equal to 1460 seasonal or equinoxial years.

But this kind of a year would not do for fixing the times of the feasts which must take place at fixed seasons, and be proclaimed by the priests, the great feast being in connection with the rising of the Nile, and hence with the agricultural interests of the country.

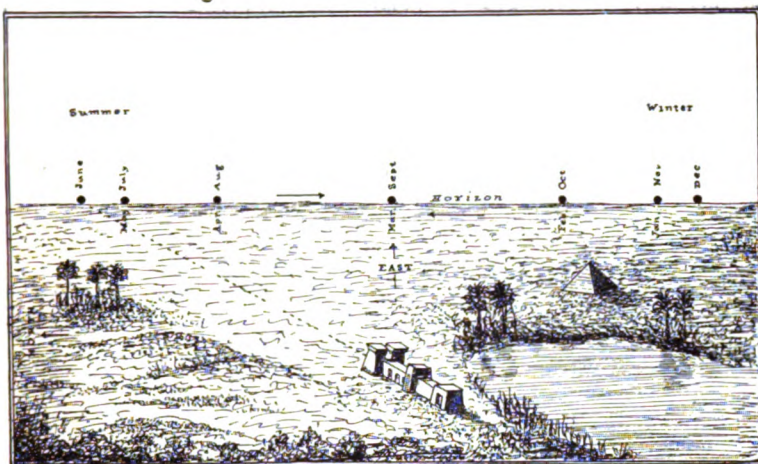
The priests must devise some way then of finding the beginning of the true equinoxial year, or at least some particular date or point of time in that year. This they did by the invention of a method which is perfect in principle, whatever it might have been in practice. This we proceed to explain.

As everyone knows, the sun comes north at the approach of summer, and goes south at the approach of winter, and thus his rising takes place at different points on the horizon at different seasons. He rises farthest north on June 21st when he reaches the summer solstice. He immediately thereafter commences to return southward, his motion being very slow for the first few days, but gradually increasing until the equator is reached on September 23rd. His motion southward now becomes less rapid until December 22nd when he reaches his most southern point at the winter solstice. Turning northward again he repeats the same changes in a reverse order, reaching the equator in his northern passage on March 21st, and the summer solstice again on June 21st. On March 21st and September 23rd when the sun is on the equator he rises due east and sets due west.

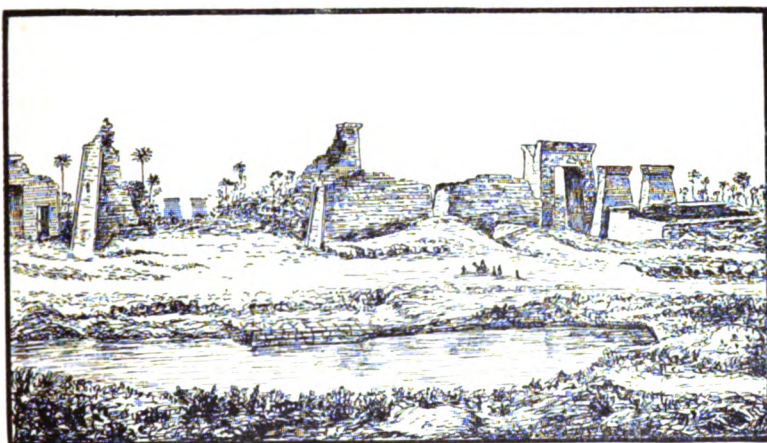
This is illustrated in the accompanying diagram, where the horizontal line denotes the eastern horizon, and small circles mark the positions of the rising sun on or about the 21st day of the month or months attached to these circles.

Now the time elapsing between the date of being farthest north to the next date of being farthest north, or from being on the equator going north to the next date of being on the equator going north, is exactly one tropical or equinoxial year. If then, the time of being farthest north, or of crossing the equator can be observed from year to year, the length of the year is known and its fixed connection with the seasons is established.

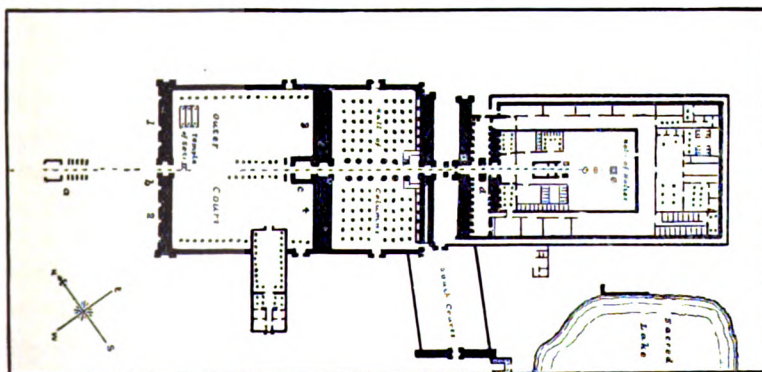
These observations might be made in several ways ; but



Orientation of Egyptian Temple.



Ruins of Temple of Amen Ra at Karnak.



Plan of Temple of Amen Ra at Karnak.





with the Egyptians they were religious in character, and were attended by religious ceremonies. Hence the use of temples in which to carry out the necessary observations.

The greatest of all Egyptian temples, the most magnificent structure ever reared by human hands, and that which forms at present the most majestic ruin in the world, was the temple of Amen Ra at Karnak near Thebes, in upper Egypt. This temple covered nearly twice as much area as St. Peter's at Rome, and was nearly 1800 feet long. We present herewith a view of the ruins of this wonderful building, and also a sketch of its ground plan.

In front of the ruins is a small body of water which formed the sacred lake, with which Egyptian temples appear to have been supplied, and the great pylons of the structure are seen to extend far into the distance.

The plan is not complete in all the numerous details which belong to it, but it is sufficiently so to illustrate and enforce what is required.

It will be noticed that what is called the axis of the temple is marked out by a dotted line added to the drawing and which starting from beyond *a* passes through a number of narrow throats or contractions, such as at *c* and *d*, until it finally reaches *e*. At *a* is a double row of sphinxes. The line, after being free from *a* to *b* passes between two grand pylons, 1 and 2, the passage being quite narrow, and enters the outer court, an enclosure somewhere about 300 feet square. Going on, the line passes between the massive pylons 3 and 4, through the Hall of Columns, between a third pair of pylons, then between a pair of square obelisks, and so on until it reaches the pedestal *e* in the holy of holies, a grand enclosure from which all light is excluded except what can find its way in through the long and narrow axis.

Whatever we may think of the complexity of other portions of the structure this open line, straight as an arrow, passing from room to room, between pylons and columns and obelisks, so often nearly throttled by apparent doorways which act as so many diaphragms, is certainly unique in the architecture of temples. This open line was oriented or directed to that point on the horizon where the sun sets when farthest north ; so that

its purpose seems evident. On June 21st then and probably on the day before and the day after, the rays of the sun would flash along the whole length of this passage, for a few minutes before setting, and illuminate the image of the god, in this case Osiris, placed on the pedestal at *e*; and this phenomenon would be possible at no other time in the year. This visual manifestation of the deity marked the summer solstice, and hence gave a definite point in the equinoxial year. This temple was oriented to the setting sun because the western horizon, as seen from Karnak, was across the Nile and was therefore the clearest and freest from near-by hills.

But other temples, and they all possessed the peculiarity of a long and narrow axis, were oriented to the rising sun on June 21st, or on December 21st, or to the sun when directly in the east, that is when on the equator. These equatorial temples, of which Solomon's temple was a good example, admitted the sun's rays twice in the year but upon single days only.

Observations made a few years ago by Mr. Joseph, on the setting sun on June 21st showed that the axis of the temple at Karnak is now about one degree out. This is what might be expected from the fact that the obliquity of the ecliptic is undergoing a slow secular variation, and knowing the rate of this variation it has been calculated that this temple must have been founded about 3700 B.C.

But the Egyptians appear to have built also temples to some of the principal stars, especially such as were useful in heralding the approach of the rising sun at certain seasons, for although the solar temples were sufficient for finding the length of the year, they were not convenient for dividing the year into seasons; and as all agricultural operations had reference to the inundations of the Nile, and as the Nile had its time to rise and time to fall, so it became necessary for the priests, who directed all affairs depending upon these things, to make no mistake in fixing the seasons of festivities or other ceremonies.

As the sun apparently travels through the whole circuit of the stars in each year, every star that rises must, at some time in the year, rise at the same time as the sun. This heliacal rising of a star, as it is called, played an important part in

ancient astronomy. Even amongst the Romans, who were most indifferent astronomers, the heliacal rising of certain stars was used to indicate certain seasons.

Thus in his first Georgic, Virgil says, "If the ground is not fertile it will be sufficient to raise it into narrow furrows under Arcturus." That is when Arcturus rises heliacally. One of Virgil's commentators says that the season referred to was about September 5th. Arcturus now rises heliacally in Virgil's latitude somewhere about November 1st; so that Virgil referred to a season as it was indicated between one and two thousand years before his time. And this the Romans must have borrowed from some one else.

The star Sirius was to the ancient Egyptians, as it is to us, the brightest and most conspicuous fixed star in the heavens, and even brighter to them than to us. They personified this star under the names Isis and Hathor, and built temples and oriented them to it as a divinity. Among the many inscriptions referring to the goddess, there is one which speaks of her distinctly in this relation. It is—

"She shines into her temple on New Year's day, and she mingles her light with that of her father Ra on the horizon."

As the only time at which they could shine into the temple was when on the horizon, it follows that they were on the horizon together, or that Sirius rose heliacally with the sun on New Year's day. Such stars ushering in certain seasons from year to year and generation to generation would naturally come to be looked upon as a sort of lower divinities, children of Ra.

Owing to the precession of the equinoxes however, this heliacal rising of a given star could not indicate the same season indefinitely, as it would get in error about a day in 70 years, or a month in a little over 2000 years.

After 300 or 400 years the star would have to be dropped, or be made to give way to some other star, which had come into a favorable position. And thus, naturally, during the long continuous existance of Egypt as a nation, we might expect that a considerable number of conspicuous stars would from time to time occupy similar roles. And it appears to be reasonable to suppose that it was in this way that many of the sub-deities came into the Egyptian theogony.

N. F. DUPUIS.

## THE EDUCATIONAL SYSTEM OF MANITOBA.

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**T**HE educational problem in Manitoba is both difficult and important. Our population is of a very mixed character. When we consider that out of a total population of about 300,000 there are, of French origin, over 20,000, of Germans, 28,000, of Galician, 21,000, of Scandinavian, 16,000—almost one-third of the whole population of other than British origin, we can easily see that the task of unifying these diverse races, and making them intelligent citizens, English in speech, Canadian in sentiment, and British in their loyalty to the empire, is one of no ordinary magnitude. Early in the history of the province the importance of popular education was recognized. A School Act was passed in 1871, the year after the admission of Manitoba as a province of the Dominion. Under this Act the management and control of the public schools were entrusted to a body called the Board of Education. This Board was appointed by the government. It consisted of 21 members, 12 of whom were Protestants and the rest Roman Catholics. This general Board met at stated times to deal with interests common to all the public schools of the province. It, however, resolved itself into two sections, the Protestant and the Roman Catholic, for the management and control of the public schools belonging to each of these bodies, respectively. And both sets of schools were public schools, all alike in the eye of the law. In 1890 this method of carrying on the public schools of the province was entirely changed. The Board of Education was abolished. A uniform system of non-sectarian schools was established, and the use of public funds for denominational schools prohibited. This is the school law that is now in force. The administration of this law is in the hands of the Department of Education and the Advisory Board. The Department of Education consists of the members of the executive council of the province, one of whom is authorized to act for the Council in educational affairs and is practically Minister of Education. This minister is the Hon. C. H. Campbell, At-



**HON. COLIN H. CAMPBELL,**  
Minister of Education.



**REV. DR. KING** digitized by Google  
Late Principal Manitoba College.



**MANITOBA COLLEGE.**  
Winnipeg, Man.



**FACULTY OF SCIENCE BUILDING,**  
University of Manitoba,

torney-General, and an active, sympathetic and progressive minister he has shown himself to be, quite abreast of the times in educational questions. It is the duty of the Department of Education to provide for the establishment of elementary, intermediate and normal schools, and collegiate institutes ; to appoint school inspectors and normal school teachers ; to arrange for the examination of teachers, the issue of teachers' certificates, &c. The Advisory Board consists of eight members, six of whom are appointed by the Department of Education, and two elected by the public and the high school teachers actually engaged in teaching. The council of the University of Manitoba has power to appoint an additional member. The duties of the Advisory Board are to authorize text-books and prescribe the qualifications of teachers, the standard of admission to intermediate and high schools, and the forms of religious exercises to be used in schools, and generally to give advice to the Department in all matters pertaining to education not provided for in the Act.

The increase in the number of schools in the province has been very rapid, keeping pace with the increase in population. In 1871 there were 16 schools in operation, with a total registration of 817 pupils. In 1903 there were 1163 schools in operation, with a total registration of 57,409 pupils. The programme for elementary schools is intended to cover the period from the age of five years to fourteen. It includes in eight grades the whole range from the alphabet to the entrance on the work for third class teachers, and into the collegiate institutes. This examination is a written one. It embraces arithmetic, grammar, reading, literature (specified selections in the Fifth Reader), geography, history, music, drawing and elementary science. Until the current year this examination included also elementary geometry and algebra. There are 47 intermediate schools in the province, situated in the smaller towns and villages. These schools serve the double purpose of elementary schools and schools for more advanced pupils who are preparing to pass examinations for third or second class teachers' certificates. Several of these schools prepare pupils for matriculation into the University. All these schools are under careful and efficient inspection. To secure this re-

sult the province is divided into nine inspectoral districts. The public schools in each of these are under one inspector, whose duties are to examine the schools in his inspectorate and report annually to the Department of Education upon every subject essential or contributory to the welfare of the schools under his charge. The schools of the city of Winnipeg have been for many years under the superintendence of Mr. D. McIntyre, M.A. There are some 18 schools in Winnipeg with 160 teachers and about 10,000 pupils. There are three collegiate institutes, or high schools, in the province, situated in Winnipeg, Brandon and Portage la Prairie. In these schools pupils are prepared for commercial life, for the teaching profession, and for university matriculation. The collegiate institutes are inspected twice a year by two commissioners appointed for the purpose.

There are three different classes of teachers' certificates granted by the Department of Education for public schools, ranking as first, second and third class. First class certificates are sub-divided into grades A and B. These and those of the second class are valid during the pleasure of the Advisory Board. The third class certificates are valid for only three years, as it is assumed that one who is contented to remain in the lowest class is devoid of the spirit of the true teacher. The examinations intending teachers are required to undergo are of two kinds, one for testing their literary qualifications, and called the non-professional examinations; the other for testing their knowledge of the theory and practise of teaching, and called the professional. Candidates are not allowed to write on the examinations for the second class certificate until they have obtained a third, nor on those of the first until they have obtained a second. Candidates, however, having special qualifications, may be admitted to any examination at the pleasure of the Advisory Board.

The following will give an idea of the scope of the non-professional examinations for third, second and first class certificates, respectively :

*Third Class.*

1. Reading and Spelling.
2. Composition and Rhetoric.
3. Grammar.
4. Geography.
5. History, English and Ca-



nadian. 6. Literature, prescribed selections. 7. Arithmetic. 8. Algebra. 9. Euclid, Book I. 10. Agriculture. 11. Botany. 12. Physiology. 13. Book-keeping. 14. Drawing. 15. Music, Writing and Spelling on all papers.

The work for this examination is divided into two parts, which may be taken together, but the second part is usually not taken until one year after the first.

*Second Class.*

1. Reading. 2. Writing and Spelling. 3. Rhetoric and Composition, with the writing of an essay. 4. Literature, selections from Ruskin, Longfellow, Wordsworth and Shakespeare. 5. General History. 6. Algebra. 7. Euclid, Books I, II and III. 8. Physics. 9. Chemistry. 10. Physical Geography.

*First Class.*

1. Writing and Spelling. 2. Rhetoric and Prose Literature. 3. Composition, with an essay. 4. Poetic Literature, selections from Shakespeare, Milton and Wordsworth. 5. History of English Literature. 6. Algebra (advanced). 7. Euclid. 8. Trigonometry. 9. Chemistry. 10. Physics, 11. History, specified chapters of Green's Short History of the English People, and Mediaeval and Modern History.

Matriculants of the University of Manitoba receive second class certificates on passing on Book-keeping, Agriculture, Botany, Music and Drawing; and undergraduates of second year standing receive standing in the examination for first class certificates in the subjects on which they have passed in their undergraduate course. Graduates of the University of Manitoba receive first class certificates, grade A, on passing in Book-keeping, Agriculture, Botany, Music and Drawing. Graduates of any other university in the British empire receive, on application, such certificate as the Advisory Board may determine.

Training for examination in the theory and practice of teaching—the professional examination—is given in the normal schools. Owing to the pressure upon the classes in the normal school in Winnipeg, it has been found necessary, for those entering on the work, to begin, every January, four or five short local sessions of three months in several important

centres throughout the province. In January and August, sessions of five months are opened in Winnipeg for teachers of higher grade certificates, who have already taken the shorter course of training, and have taught at least a year. Any one who has taken the two courses named, and who holds a non-professional certificate of the first class, may, on passing an examination on certain prescribed texts, qualify for a professional first class certificate. It follows from this that every one who teaches in Manitoba on a regular certificate must have had training for at least three months. Those who hold second class certificates must add to this a five months' course of training and an experience in teaching of at least a year. Those who hold first class licenses must, in addition to this, have further experience in teaching, and pass a further professional examination. The higher positions in the province, such as those of principals of intermediate schools, are open only to first class teachers. The plan of requiring all teachers, whatever their academic standing may be, to take a shorter course in training, and to teach for a time before proceeding to the longer course, seems to be amply justified by the results. Teachers from other provinces, with training and experience, though required to attend the normal school of the province for such a period as may be deemed necessary under the circumstances, are not asked to take both courses in full.

The work done in the normal schools is both theoretical and practical. In additions to text-book study and lectures on principles and methods of teaching, and government, there is daily practice in the school rooms by students-in-training. In Winnipeg the whole of the public schools may be used for practice purpose. In addition to this certain teachers, including the normal school masters themselves, give personal supervision and criticism. Besides giving professional training to teachers, the normal schools serve an important office in giving instruction in such subjects of the programme as are comparatively new. For example, the nature-study idea and the idea of manual training are practically explained and illustrated. Lessons in vocal music, drawing and physical training are also given, and every teacher is supposed to be able to give instruction in these branches.



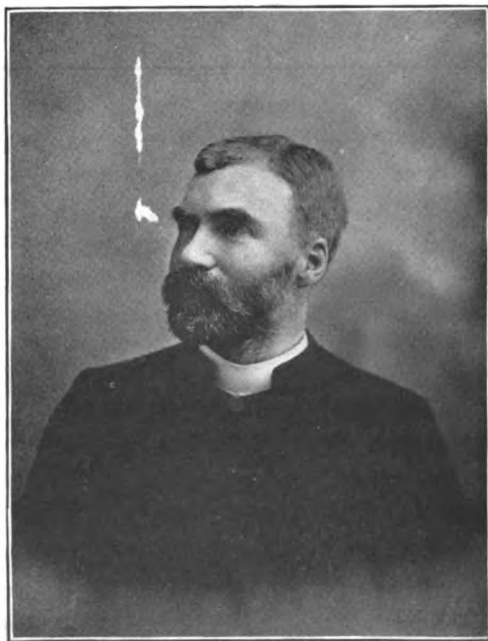
**ST. BONIFACE COLLEGE,**  
**St. Boniface, Man.**



**ST. JOHN'S COLLEGE,**  
**Winnipeg, Man.**



**REV. FATHER DRUMMOND,**  
St. Boniface College.



**REV. PRINCIPAL PATRICK,**  
Manitoba College.

The following outline for the second and first class courses of training indicates the nature of the work attempted :

*Second Class.*

1. *Philosophy of Education* : Rosenkranz. 2. *History of Education* : Painter. 3. *Primer of Psychology* : Halleck. 4. *Logic* : Lectures based on Creighton. 5. *School Management* : Lectures based on Schoolroom Practise ; School Law ; Regulations of the Department of Education and the Advisory Board. 6. *Methods* : (a) Lectures, (b) Special Study of "Teaching the Language Arts," by Hinsdale ; "Special Method in History and Literature," by McMurry, and "The Voice and Spiritual Culture," by Carson. 7. *Music* : Theoretical and Practical Instruction. 8. *Drawing* : Theoretical Instruction. 9. *Manual Training* : Practical Instruction. 10. *Drill* : Practical Instruction.

*First Class.*

Part I.

1. *Philosophy of Education* :
  - (a) Philosophy of Education, Rosenkranz.
  - (b) Methods in Education, Rosmini.
  - (c) Outlines in Pedagogics, Rein.
2. *Psychology* :
  - (a) Handbook of Psychology, Stout.
  - (b) Logie, Creighton.
3. *School Management* : School Management, Tomkins.

Part II.

1. *Child Study* : Psychology of Childhood, Tracy.
2. *Educational Classics* : Education, Spencer, and any one of the following : Emile, Rousseau, Leonard and Gertrude, Pestalozzi, School and Society, Dewey.
3. *Methods* : Report of the Committee of Ten. Art and the Formation of Taste, Lucy Crane.
4. *History of Education* : European Schools, Klemm. English Education, Sharpless.

*The Bi-lingual System.*

In a province where so many different languages are spoken the administration of the school system becomes com-

plicated and difficult. Fortunately the distribution of the various nationalities has not thus far required more than two languages to be taught in the same school. To meet the difficulty arising from the variety of languages used, the rule in force is that when ten of the pupils in any school speak the French language, or any language other than English as their native language, the teaching of such pupils shall be conducted in French, or such other language, and English upon the bi-lingual system. The only nationalities that have claimed this right are the French and the German. In 113 French schools and 40 German the bi-lingual system is in operation. The former are situated chiefly in the old French parishes along the Red River and the Assiniboine, the latter among the Mennonites. There are some 37 schools among the Galicians, under an inspector of their own nationality, but in these no request has been made for bi-lingual school books. The Galicians seem more desirous to learn English than to continue the use of their mother-tongue. The young Galician declares that he is Canadian, not Galician. The Icelanders and the Scandinavians generally are making good progress in the acquisition of English. The young among them, especially the Icelanders, generally prefer to speak English, and in many cases speak it better than their original language. While the Icelanders seem determined to make English the language of their daily life, they do not wish their own language to be forgotten. At their request the systematic study of Icelandic literature has been placed in the curriculum of the University of Manitoba.

#### *Religious Exercises.*

The public schools are entirely non-sectarian. Religious exercises, but only of a non-sectarian character, are allowed, and at the request of the school trustees of the district in which they are to be used. When the trustees have duly informed the teacher that it is their wish that religious exercises be held, it is his duty to hold them. They are held just before the closing hour in the afternoon, and are limited to the use of a prescribed form of prayer, and the reading, without note or comment, of selections from the Bible that have been author-

ized by the Advisory Board. Nearly 300 schools are closed with prayer, and the Bible is used in about 200 of them.

### *Religious Teaching.*

Religious teaching can be given in schools only when the trustees of the district desire it, or when it is asked for by the parents or guardians of at least ten children attending the school, in the case of a rural school district, or by the parents or guardians of at least twenty-five children attending the school, in the case of a city, town or village school, and it can be given only between the hours of half-past three and four o'clock in the afternoon. It must be conducted by some Christian clergyman whose charge includes any portion of the school district, or by any person duly authorized by him, or by a teacher when so authorized. Under certain conditions of attendance of Roman Catholic children, both in rural districts and in towns and cities, the school trustees are required to supply a Roman Catholic teacher. And in corresponding conditions of attendance of Protestant children, trustees are required to employ a Protestant teacher. Thus, though, under the simple operation of the Act, our schools are without any direct religious teaching, yet when due advantage is taken of the regulations incorporated in the Act, no inconsiderable amount of religious knowledge may be imparted. It is to be regretted, however, that among Protestants these regulations are almost a dead letter. On the other hand, there are over a hundred Roman Catholic schools in which the regulations are in force and religious instruction given.

### *Free Text-Books.*

Early last year the system of furnishing text-books free for the use of schools was introduced. These books become the property of the school district. They are merely loaned to the pupils, and must be returned to the teacher at the close of the term in a good condition. If they are lost or destroyed they must be replaced. They must meet a long-felt want, as they are already in use in nearly all the schools in the province. One great advantage attending this system is that, under its operation, every pupil has the books he needs. Formerly in

this new land this was frequently not the case. The system works well and is popular among both teachers and pupils.

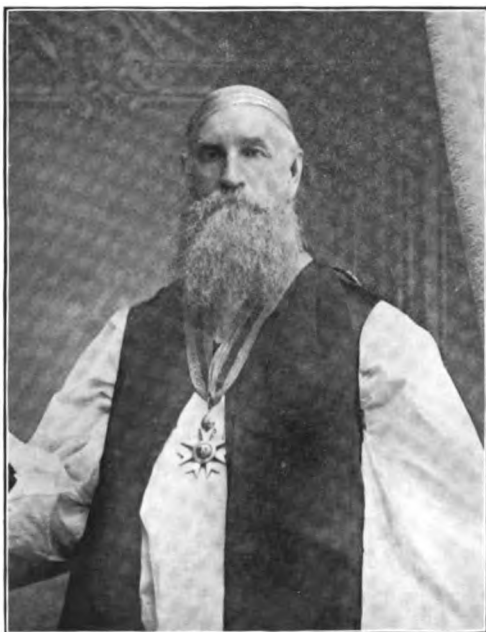
*School Income.*

The income of the public schools is derived from two sources—the legislative grant and the municipal taxes. The legislative grant last year amounted to \$254,615, each school receiving \$130 a year for each teacher employed. The municipal taxes for the same year, for school purposes, amounted to \$796.05. The legislative grant depends upon the school lands. Two sections of land, 1280 acres, in each township of thirty-six sections, have been set apart for school purposes. This grant amounts to over a million and a half acres in the whole province. At a moderate estimate the school lands of the province are worth not less than ten millions of dollars. The number of teachers employed is 628 males and 1466 females. The number of these with first class certificates is 261, with second class 853, and with third class 591. As good teachers are scarce, 339 interim certificates had to be issued to keep all the schools open. The average salary for cities and towns is \$598, for rural schools \$451, and for the whole province \$488.

*School Consolidation.*

In a new country like Manitoba there are, as might be expected, large areas sparsely settled. In these there are many school districts that are wide, with houses far asunder. In 166 of these scattered school districts there are in all only 900 children attending school, giving an average of less than six pupils for each school. In 61 of them the average is less than five. Any twenty of the 166 teachers in these schools could easily do the work of the whole number, and do it better if they and the pupils could be brought together. This the Department of Education is endeavouring to accomplish by the consolidation of the schools of a whole township, or even a larger area, into one good graded school situated as conveniently as possible to the whole district. It is believed that the saving effected in the smaller number of teachers and buildings would more than pay for the cost of conveying the children to this school, while the benefits derived from the larger and better equipped school would be beyond all comparison.

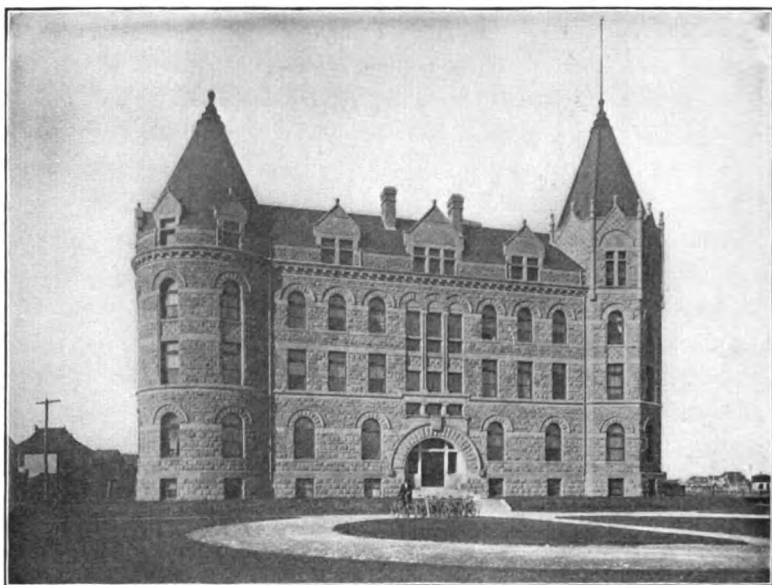




**RIGHT REV. ARCHBISHOP OF RUPERT'S LAND.**



**REV. BISHOP MATHESON,  
St. John's College, Winnipeg.**



**WESLEY COLLEGE,**  
Winnipeg, Man.



**REV. PRINCIPAL SPARLING,**  
Wesley College, Winnipeg.

*Manual Training, &c.*

In the city of Winnipeg a beginning has been made under the generous encouragement of Sir William Macdonald in the establishment of manual training as a branch of general education. It is felt that this form of educational work will be a valuable supplement to the ordinary subjects of the school course, from the training it gives to the hand and eye of the pupil, and the development of his power of steady application, in the construction of what his mind has conceived. A course of nature-study has also been introduced with a view to the formation in children of habits of accurate observation, correct reporting and sound thinking. These new subjects are arousing deep interest among educationists, and much good is expected from them.

*The University of Manitoba.*

The keystone of the educational edifice in this province is the University of Manitoba. It is this institution that gives tone and direction to the educational development of the province. The University of Manitoba came into existence in 1877. It was founded on the model of the University of London, and "for the purpose of raising the standard of higher education in the province, and enabling all denominations and classes to obtain academical degrees." Its existence was rendered possible by the friendly co-operation of the denominational colleges, at that time carrying on higher education in Manitoba. These colleges were St. Boniface, Roman Catholic; St. John's, Church of England; and Manitoba, Presbyterian. The Manitoba Medical College and Wesley College, Methodist, have since been added to the original three, as affiliated colleges of the University. The governing body of the University is the Council. This body consists of a Chancellor and Vice-Chancellor, of seven representatives from each of the affiliated colleges, seven appointed by the Lieutenant-Governor and Council, and ten chosen by the graduates of the University. At the formation of the University it was merely an examining body. Provision, however, was made for its development into a teaching body as well. And for a number of years lectures have been given in natural science open to the students

of all the colleges. In 1900 a substantial and commodious building was erected for the natural science classes. This building cost some \$60,000, and it is provided with the best appliances for heating and ventilation. A good beginning has been made in furnishing it with a laboratory and suitable apparatus. And a few weeks ago six new professors were appointed to extend still further the common teaching of the University, in the department of mathematics and natural science. As endowment the University received some years ago from the Dominion Government a grant of 150,000 acres of selected land in the province. This land grant constitutes a most valuable asset, worth more than a million dollars, and it opens up a wide prospect of future activity and usefulness. The University receives, besides, an annual grant of \$6,000 from the provincial government. Last spring 69 degrees of various kinds were conferred, and 816 candidates, including matriculants, were examined in connection with the University. As so large a body as the Council of the University would be too unwieldy to manage such an institution, its business is conducted mainly through standing committees. Of these the largest and most important is the Board of Studies. The Board of Studies consists of thirteen members, and is composed of representatives from all the constituent colleges and the graduates of the University. It nominates examiners, superintends all examinations, assigns standing to students, tabulates results of examinations, prepares the curriculum of studies, &c. The appointment to the office of Chancellor is in the hands of the Provincial Government. The late Archbishop of Rupert's Land held this position from the foundation of the University until his deeply lamented death last March. Much of the success of the institution is due to the great learning, wisdom and goodness of the late primate, and the cordial co-operation of such men as the late Rev. Dr. King, for many years Principal of Manitoba College. No successor to the Archbishop in the Chancellorship has yet been appointed.

#### *The Agricultural College.*

The latest educational institution established in the province is the Agricultural College. A Board of ten directors

has been appointed, two of whom are chosen by the members of the University Council from their own body. Thus the provincial University and the Agricultural College are kept in close touch with each other. Four of the directors are chosen by Farmers' Institutes, the rest by the provincial government. A farm suitable in extent and quality has been selected near Winnipeg. Plans for buildings are being prepared, and it is expected that by this time next year the new college will be in full operation. By means of all these institutions it is hoped that we shall weld together all the heterogeneous elements of our population into one homogeneous whole, intelligent and patriotic, loyal to Canada and our great empire, and to all that makes for righteousness in the nation.

THOMAS HART,

Manitoba College, Winnipeg.

## ETHICS OF RELIGIOUS CONTROVERSY.

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**T**HE Church History of the future, if it is to present a truthful record of religious thought as well as ecclesiastical action, must find space for due notice of the progress of Biblical study, in its ethical aspects as well as its philological or exegetical results. Hunt's "History of Religious Thought in England," of which the fourth and concluding volume appeared in 1896, is one of the few works in which this has been attempted. And yet in his survey of the 18th Century, he makes no mention of the distinctly epoch making controversy concerning the famous text of the "Heavenly witnesses" associated with the names of Gibbon, Porson and Archdeacon Travis. He takes up the subject with "Essays and Reviews" (1860), and the issue of Bishop Colenso's Book on the Pentateuch (1862). It is much to be regretted that Porson's essay is not reprinted. Like Bentley's more celebrated work on Phalaris, it is a masterpiece of acute criticism, and brilliant argument. And Archdeacon Travis should receive his due meed of praise, surely, for he took the stand of conservative resistance with no small ability as well as courage. He was a fair scholar and had been senior Chancellor's Medallist at Cambridge in 1765. In him the two motives of resistance were fully and candidly presented : first, complete ignorance of critical method and the value of manuscript authorities : secondly, the sincere dread that the loss of of the disputed verse would imperil the doctrine of the Trinity. The same motives inspired the Late Dean Burgon a century later, in his attacks upon the Revised Version ; and continue to inspire the more recent defenders of traditional theories concerning the Bible.

It is the purpose of this article not to discuss critical methods, nor the value of the results which are claimed for them, but rather to consider certain fallacies of argument and demeanour possibly on both sides, which are opposed alike to Christian charity and to reason, and which are the most serious obstacles at the present day to the right study of this most important question.

To commence with writers at the critical school, it may be firstly remarked that a tone of scornful reference to those who defend tradition, is rarely (if ever) to be met with among English and American Scholars. Some German writers have offended in this respect, but the German Language and (it might be added) the German nature, lend themselves with dangerous facility to a certain roughness which does not derive its source from undue brevity. We must lay down as an axiom that calmness and decent courtesy are specially incumbent upon those who endeavor to prove novel positions, and who inevitably disturb prepossessions entitled to sympathetic respect. Porson was guilty of this fault when he poured his irony upon Archdeacon Travis, entirely as posterity agrees with his argument. It is the case, in fact, where on one side "to speak the truth in love" is obligatory, while on the other side, much tolerance is due to those who are learning that they have yet much to learn. More repulsive to the defenders than bitterness is the tone of light hearted or merely artistic consideration, as in some French writers, preeminently in Renan. Far more acute repulsion was excited by his patronizing word painting in the *Vie de Jesus* and '*Les Apôtres*', than by the more ruthless conclusions of his contemporary D. F. Strauss, simply because the latter seemed to be, and doubtless was, more earnest in his beliefs and had more gravity in his style. Yet it surely is dangerous to use words like "assailing the Bible" unless there is patent evidence to that effect, as in Voltaire's frankly scandalous *Life of David* (in the *Dictionnaire Philosophique*) or in similar publications which have disgraced the Secularist Press in more recent times. It surely should not be hard to credit those from whom we seriously differ with pure motives and devout purpose. There are no large profits to be made by abstruse works dealing with the scientific study of the Bible. A mere intellectual middle-man, like Canon Henson, may earn easy gain by essays in the fashionable reviews. But books of solid calibre are as slow to sell as to write and only deep conviction can explain the purpose which inclines the retired scholar

"To scorn delights and live laborious days."

Turning now to the methods of the defenders of traditional views, while we have admitted some palliation for warmth, it is

surely advisable that on this side also the strictest logic should be employed, and the rules of Christian courtesy observed. And yet it must be sorrowfully remarked that every trick of advocacy, every calm assumption, every disagreeable inuendo, is frequently met with in the writings of those who profess to defend the impregnable rock of Holy Scripture.

It is not necessary to refer to the cheap rhetoric of the popular preacher, astounding with dramatic gesture and skilful tricks of voice, a synodical audience, mainly as ignorant of the real subject as the preacher himself. We do not refer to the polemical correspondents of the press, who glibly recite the names of critics or apologists of which they have barely a third-hand acquaintance. We do not refer to the amateur theologian, the retired tradesman or banker, who laudably devotes his leisure to the study of the Bible, but less laudably publishes his hasty conclusions, rushing in with slap-dash decisions upon difficulties in which devout scholars fear to tread, and not seldom preparing to decide them with aid of a crude and audacious rationalism, the outcome of that common ignorance which he is pleased to call his "common sense."

We turn, by preference, to the writings of those apologists who combine real scholarly knowledge with an equally strong adherence to traditional theories. Bishop Moule, of Durham, the worthy successor of Westcott in that famous diocese, stands above criticism and above presumptuous praise. His gentle wisdom, as much as his ripe scholarship, would preserve him from the spiteful inuendo and from the Pharisaic sneer. Dean Wace, a man greatly beloved and respected, and one who has outgrown certain narrower tendencies of earlier days, worthily represented the older Biblical scholarship at the recent English Church Congress. Without bating a jot of stalwart defence, or of courtesy to opponents, he showed how a great Christian scholar demeans himself, when in company with those who, like the rising teacher, Kersopp Lake (whom Oxford has sent to Leyden), represent aspects of truth far removed from his own inherited and acquired conclusions.

Lastly, we would quote a Canadian theologian, whose excellent little monograph upon "The Higher Criticism" compresses into a very brief compass an exceedingly able presenta-



tion of the criticisms which the so-called "Higher Critics" are bound to face and to answer. Principal Sheraton holds a somewhat unique place among theologians, in that the sum of his published writings bears so small a proportion to his well-earned reputation. His "living epistle" is the increasing army of devout and energetic ministers, who are to be found from Cape Breton to Vancouver, illustrating the excellent traditions of Wycliffe College. Dr. Sheraton is frankly and fully a champion of traditional theories of the Bible, and a critic of the critics. On the merits of his argument against the Wellhausen (or more truly, as he rightly says, the Vatke-Graf) theories, we do not purpose to dwell. If we notice a few inaccuracies in some of his statements, it is because one so intelligent and charitable will gladly welcome any contribution, however slight, to his own professed aim of doing justice to both sides.

In his excellent little monograph we find no trace of those "dyslogistic" turns of phrase, like—"even Dr. Cheyne admits," so common with the ordinary advocate. As for any indulgence in the style of bludgeon-like invective, in the style of Dr. Pusey in his Daniel commentary, it would be as foreign to his temperament as to his intelligence. We may note as a slip, to be corrected doubtless in another edition, a rather inadequate notice of the origin of Biblical criticism. It is hardly fair to connect the doubts of Celsus, rather than the devout labours of Origen and Jerome, with the beginnings of the work. Both Origen and Jerome suffered for their opposition to traditional opinions. Jerome was reviled as a "*falsarius, sacrilegus, corruptor sanctarum literarum*," and the like flowers of devout eloquence by the Burgons and Carmichaels of the 5th century,—abuse which the Saint acknowledged by calling his opponents "*aselli bipedes*,"—a candour which we are glad to see is not imitated by the liberal theologians of to-day.

Dr. Sheraton\* has overlooked among the restorers of critical study, the learned Jew, Kalonymus who lived in the 13th century. He wrote to a friend these very remarkable words, which entirely disprove any suggestion of sceptical impiety in

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\**The Higher Criticism*, by Rev. Principal Sheraton, D.D., of Wycliffe College, Toronto, 1904.

his mind : "My honoured brother, a great and strong perplexity arose in my mind lately, concerning this chapter (Gen. 1.) which I think will not prove groundless and which I have not heard that anyone took it up before me. The difficulty is the following : from the beginning of Genesis up to the passage of the Sabbatical rest (II. 1-3) only *Elohim* occurs and not once *Jehovah*. From II. 4. to V we find *Jehovah-Elohim*. From V to VI 9 only *Jehovah* is mentioned. This strange use of the names of God cannot be accidental, but gives according to my opinion, some hidden hints, which are too wonderful for me to understand"\*

As devout and humble-minded was the French physician Astruc, whom Dr. Sheraton without any authority dismisses as a "freethinker." He published his "*Conjectures sur les mémoires originaux et dont il parait que Moïse s'est servi pour Composer le livre de Genèse*, in 1753, but the book was not publicly identified with his name till after his death. It seems that he had devout scruples (which Dr. Sheraton will surely not consider the fruits of "freethinking") against making known his discoveries. "*Il était bien sur de ses intentions*", remarks his biographer Lorry, "*mais il avait peur que quelques esprits forts ne crussent pouvoir de ses conjectures tirer quelque induction contre la divinité des Livres saints. Il eut besoin d'être rassuré longtemps par des personnes pieuses et instruites, avant de donner cet ouvrage qui n'est que curieux sans être dangereux.*" Curiously enough, in the very same year, a Protestant writer, Peter Brouwer, had treated the same subject in a dissertation, "*qua disquiritur unde Moses res in libro Geneseos descriptas didicerit.*"

We must venture to consider Dr. Sheraton in error when he says (p. 6, note) that "Richard Simon published *attacks* upon the unity of Mosaic authorship of the Pentateuch." Protestant scholarship has usually looked with admiration upon this learned and courageous student whom Bossuet attacked. Would Dr. Sheraton say of the famous scholar, Franz Delitzsch, who, at the end of his distinguished career as a champion of conservative views, finally accepted the Maccabæan date of

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\*This remarkable letter was first published by Professor A. Neubauer (*Athenæum*, April 14, 1888.)

Daniel, placing it in A.D. 168, and also greatly modified his views of the Pentateuch, that he "attacked" these portions of the Bible? And if not, why say harsh things of one who laboured in face of opposition more formidable than pulpit invective and academical condemnation?\*

Delitzch's change of view can at least be quoted as well as that of Moller, a scholar of distinctly inferior calibre, while Dr. Sheraton's estimation of Sayce is certainly much higher than that which he usually receives from expert scholars, who regard his later divagations from his own line of study with less admiring feelings.

Again, it is perfectly fair for Dr. Sheraton to remark that there is "no finality" in critical results. Certainly not. There is no finality in mining operations until the mine is exhausted, and that the Bible is not exhausted Dr. Sheraton and Dr. Cheyne would be in perfect agreement. For "finality" one must go to Rabbinical schools of thought, and not to that teacher who confessed that now he knew only in part, who confessed that "he had not yet apprehended," but was ever pressing forward. And is it of any controversial advantage to point out that there is "no unanimity among the critics?" (p. 16). Surely that is a weapon of double edge, for what measure of unanimity is there among the champions of traditionalism? An incident comes back to the mind of the writer, which may not inaptly illustrate the danger of this plea. Many years ago a friend was engaged in studying the book of Daniel. Fearing all contamination from "critical attacks," he provided himself only with guides of acknowledged orthodoxy, Pusey, Keil, the Speaker's Commentary, and Westcott's article in Smith's Dictionary, an essay, it may be remarked, which in no way reflects that great teacher's riper opinions and methods. What was his dismay when he found his guides in complete disunion in their efforts to solve the difficult problems while holding fast to the traditional chronology. He found, as any student will find, Pusey denouncing as infidelity a belief held by Keil; he describes as "the insolence of unbelievers," one of the candid ad-

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\*The writer once ventured to put this, as a sort of *argumentum ad hominem*, to the late Sir W. Dawson. That distinguished geologist frankly admitted that a change of mind, on a crucial question, by an authority of the highest rank, was a serious if not a convincing piece of evidence.

missions of H. J. Rose in the Speaker's Commentary, "that no identification of Belshazzar is possible." And so on throughout the book. Driven to despair by the fatal and combative disunion of the traditional advocates, the student took courage to consult some commentaries on the other side, and finally was led to understand the position and value of this most instructive portion of God's Word, by the acceptance of a chronological theory now held by the vast majority of theologians.

Indeed, there is a marked improvement in the amenity of theological controversy, for which God should be thanked. And it is our hope that the abuse will be "reformed altogether" before long, and that the cutting inuendo and the dyslogistic epithet will follow the strong arguments of stake and rack and prison. There has never been a student of the Bible, however distinguished for learning and piety, who has not been the victim of attacks from the ignorant or the interested supporters of authoritative tradition, when they have in the least degree departed from the jots and tittles of tradition.

Johann Albrecht Bengel, the critic who, with one consent, stands first as a commentator upon the New Testament, did not escape bitter attacks in his own time from those who feared the possible results of his processes. When he published his edition of the new Testament in 1734, with its *apparatus criticus*, its departures from the *textus receptus* were denounced as treason to God's Word, as he relates [*Vita auctoris*, § 35.] Bengel received these attacks very patiently, and declared: "I have suffered many hard words from those who are themselves God's children, and may have to endure more, until at last the truth shall prevail. \* \* \* All truth brings suffering and contradiction with it."

The conclusion of the whole matter is to "speak the truth in love," the very last word of true science and of the gospel. Some weighty words, uttered in the Oxford University pulpit a few years ago, by one to whom the writer of this essay owes more than he can express, may here be quoted:

"We live in an age of keen inquiry and wide research, stimulated by marvellous discoveries of things new and old, and rewarded, as no candid mind can doubt, by large and real progress in almost every branch of

knowledge. Can we wonder, or need we fear, if at such a time that which is man's *highest* concern becomes the subject of the most searching criticism and most eager speculation? What more natural source of the keenest enquiry than an ardent, fearless love of truth? or what more certain, to one who trusts the promise of our Lord, than that all such enquiry must bring out into clearer light that Truth into which His Spirit has been sent to guide us?

"To that Truth the most searching criticism *cannot* be destructive, need not be unfriendly. Be patient, therefore, with the enthusiasm, or even with the rashness, if such it seem to you, of those who feel themselves called to the most searching examination of those Scriptures, which are to us 'the words of eternal life.'

"Remember what Butler has so wisely taught us, that the only important question about Holy Scripture is, whether it *is* what itself claims to be, not whether it is in all respects what we may have imagined.

"Learn, therefore, to distinguish the solid substance and majestic form of Truth from the shadows which it casts both behind it and before, in ancient prejudice and novel theory. The prejudice may be erroneous, the theory imperfect, and both may pass away, but the Word of God abideth for ever."\*

JOHN DE SOYRES.

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\*From a sermon preached at Great St. Mary's, Oxford, June 9, 1889, by Ven. Archdeacon Gifford, author of a recently published and excellent edition of Eusebius' *Preparatio*.

## RHYTHM IN PROSE.

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### II.

**F**OR any light to be derived from Latin sources on the subject of Prose Rhythm, we have to look mainly to Quintilian. Cicero has indeed discussed the question at considerable length, both in the 'De Oratore' and in the 'Orator,' but among those who have devoted themselves to the task of expounding the art of composition he represents the somewhat unusual type of a writer whose practice is infinitely better than his theory. Gifted with a perfect ear, he poured out prose so marvellously rhythmic and sonorous that to read it or to hear it read amounts almost to a species of debauch. But when he comes before us as an analyst, he is more often than not a disappointment. He fumbles, he contradicts himself, he sets forth obvious truths and orthodox opinions with painful elaboration he seizes on the simpler factors in the problem, and is ever ready to diverge with manifest relief into an encomium on Rhythm as an element of style; but when he is brought face to face with the real crux he simply runs away from it. In short he is here, as always, Cicero, playing from his strongest suit, which was power of rhetorical expression and not profundity or originality of thought.

Yet one ought not to allow the accumulated irritation of years to blind one to such service as he has done, slight though it be. For one thing he has obviously followed his usual practice of working up his Greek authorities before putting pen to paper. He quotes or refers to writers like Hieronymus, Ephorus, Theodectes and Theophrastus, and thus, on the somewhat generous hypothesis that he understood them, we are enabled to get some inkling of the doctrines held by the later Aristotelians. Moreover, although we may find his answers unsatisfactory, we must admit that the truly relevant questions as concerning Prose Rhythm have never been better put than by Cicero. "It may be asked," he says, "what is the rhythm of a speech, where it is placed, and from what it

arises; whether it is one thing or two, or more; on what principle it is put together; how, when and where its employment conduces to pleasurable effect. Are the several kinds of Rhythm common to all kinds of composition, Narrative, Persuasion, Exposition, or are there certain Rhythms specially adapted to these distinct types? If we decide for the second alternative, then what are the different Rhythms suited to the different kinds of speech?"

This is putting it fair and square, and the fifth question in the above comprehensive catechism is precisely that with which we are most concerned—"On what principle is a Rhythmic sentence put together?" We naturally expect that a man who can state the problems so clearly will at least know when he has failed to solve them and acknowledge as much, but that is not the way with our Cicero. What could be more fatuous than the following pronouncement? "The Rhythm of a speech is every kind of Rhythm, but one Rhythm is better and more appropriate than another. The place of this Rhythm is in every part of the words. Its source is the pleasure of the ears; its purpose is pleasure; its when is always; its place the entire connexion of the words."

Such verbiage appears to afford him a strange gratification, which few will share with him, but much may be forgiven if he will but honestly tackle the crucial question and reveal how the 'purple texture' of Rhythm is wrought. This, however, is just what he has no intention of doing at this stage; he will take the matter up later on. In the meantime after some not very illuminating remarks on the employment of the Iambus, Dactyl, Anapaest and Spondee, he proceeds to compromise himself hopelessly by a series of contradictory statements bearing closely on the subject he has deferred. On the one hand he says that feet of the Dactylic Iambic and Paeonic ratios cannot be avoided in a speech: "*respondebunt non vocati... quibus ordine locatis, quod efficitur, numerosum sit necesse est*;" on the other hand he informs us "*Ego autem sentio omnes in oratione esse quasi permixtos et confusos pedes*." Again, the 'De Oratore' maintains that if the first and last feet are Heroics, Paeons or Cretics "*medii possunt latere*;" the 'Orator' teaches on the contrary that, while there must be

rhythm at the beginning and end of a sentence, especially at the end, much more than this is requisite, for the whole period must flow harmoniously to the close, and the close must be harmonious with all preceding.

It will be admitted that these dicta are hard to reconcile. The truth is that we are tossed like shuttlecocks between two views or rather between two states of the writer's mind. On the one hand he sees that it is only the Rhythm of the beginning and the end of the sentence that can be readily gripped in the analytical forceps: on the other hand he has an uneasy consciousness that in a perfect sentence there is a Rhythmic unity more easily felt by the ear than exhibited to the eye by methods of Prosody. But with hopeless inability to say *the thing itself* he talks round and round it to the reader's distraction. This becomes only too clear to us when we reach that part of the 'Orator' in which he finally braces himself to face the great issue.

Was it sheer effrontery or only perversity that induced him at this point to add to the all sufficient question "*quaratione numerosa fiat oratio?*" seventeen mortal others, hardly one of which is ever referred to again? "We must," he says, "discuss whether Rhythm is required at the beginning only of the sentence or at the end, or at both beginning or end; whether the divisions of the sentence must be equal in length for all rhythms, or some longer or some shorter, and if so when, and why, and in what parts; what words (?) may be most suitably combined and how, whence the form of words has arisen," and so on through the rest of the list. We cannot call the questions irrelevant, but what was the use of stating them when we are next told that "one may, without treating each specifically, yet so speak '*de universo genere*' in such a way that each will receive its answer?" Half a dozen examples of his meaning, if he has any, would be better than all his chapters of 'universal' treatment.

With his analysis of 'openings' and 'cadences' we need not concern ourselves much. It has been far more thoroughly done by others, notably by Quintilian, and besides any one can do it for himself. The Dichoreus (— | —), he tells us, makes a good ending for a period. The Cretic and Paeon are



agreeable, though the form of the latter ending on three shorts is languid. The Spondee, even the Iambus and the Tribrach in certain combinations, and the Dactyl, especially with a Trochee after it, will serve. But the Trochee at the close is really a Spondee owing to the *communis syllaba*, just as the Paeon of the type — — really ends in a long when it closes the sentence. The Dochmiac — — is fit for any place, but must not be used more than once, as repetition makes it obvious. We must vary the endings so as to avoid wearying our readers—all admirably true, as is also his ten times repeated warning that Prose must not be metrical, but we have heard most of it already from Aristotle.

At last he comes to business, and starts in the most promising fashion by exhibiting the component parts of the Period. These are called *Incisa* or Phrases (his word for the Greek *κόμματα*), and *Membra* or Clauses (*κῶλα*). We expect to be shown how the rhythm of the Phrase merges in that of the Clause, and that again in the Rhythm of the Period. But he condescends to no such explanation. He does not scan the examples he gives, and even if he did, we should be little benefited, for the 'Membra' are so short that they present no harder problem than the final cadence of a Period. What can be learned from a sentence like "Domus tibi deerat? at habebas, Pecunia superabat? at egebas"? or from "O callidos homines! Orem excogitatam! O ingenia metuenda"? The only further light to be got is from a casual remark which he makes in speaking of the various feet, to the effect that anything said of them as occurring in clauses holds not merely for the last word but also for the preceding and even for the third from the end. This is absolutely all that can be got out of him, for now the astonishing man proceeds: "et quoniam plura de numerosa sententia diximus quam quisquam ante nos, nunc de ejus generis utilitate dicamus!" The conclusion we are driven to is that the whole matter of rhythm in the body of the period was for Cicero (as Blass says) 'ein voltkommenes Geheimniss,' and that his teaching may be summed up in three words of his own, "medii possunt latere."

But though he is thus inconclusive and disappointing in his handling of the main problem, there are many interesting re-

marks scattered here and there through the two treatises. For instance he notes that in balanced and antithetic structure rhythm often comes of its own accord. Again he gives us his notion of what a full period should be. It consists of four membra about the length of four hexameters. He shows appreciation too of that excellent saying of Aristotle's that the sentence should not run on forever, nor come to a stop merely because the speaker wants to take breath, nor because the copyist has put down a mark of punctuation, but because the expected rhythm is complete. And lastly, like Dionysius of Halicarnassus, he indicates the more excellent way of studying Prose Rhythm when he shows by examples how it is possible to spoil a Rhythmic sentence through altering the order of the words, and conversely how to amend a sentence rhythmically defective. Thus the ending "ab aliquo video perfacile Deliaco ant Syro potuisse superari" is ruined by the change to "potuisse superari ab aliquo Syro ant Deliaco"; and on the other hand the sentence "Obesse non potest, quin ejusdem hominis sit, probos improbare, qui improbos probet, is improved into "quin ejusdem hominis sit qui improbos probet, probos improbare." But this is a matter merely of ear; it is an example of 'popular virtue': he is unable λόγον δίδοναι.

More than a century separated the working years of Cicero from those of Quintilian, and in that time, as we learn from the latter, the art of composition had been discussed by many writers. Some advance therefore in the knowledge of the subject is fairly to be looked for, and we are fortunate in having it represented by such a work as the "Institutiones Oratoriae." The more one reads Quintilian the more one respects him for his sound sense, his business-like directness, and the restraint which he obviously exercises on his power of striking expression. He has the great merit of minding the matter in hand, he makes his points with clearness, and, above all, he knows when he has settled a question and when he has not. Thus in treating of Rhythm he admits that there are some things he cannot explain. Why, for instance, do some short sentences appear quite full and adequate, while others though much longer are curt and mutilated? Again, when Cicero wrote "Neminem vestrum ignorare arbitror, judices,

hunc per hosce dies sermonem vulgi atque hanc opinionem populi Romani fuisse," why did he not use "hos" for "hosce"? 'Hos' would not have been too harsh, but the ear feels that 'hosce' is better, and that is all that can be said about it. And further, why did he not end on "sermonem vulgi fuisse"? One cannot go deeper than the mere statement that the ear would have been disappointed had there been no clause to balance the first. The ear is the sole and ultimate judge of what is good and bad rhythm. As he says in his own vigorous way "Optime autem de-illa judicant aures quae plena sentiunt, et parum expleta desiderant, et fragosis offenduntur, et levibus mulcentur et contortis excitantur et stabilia probant, clauda deprehendunt, redundantia ac nimia fastidiunt." The business of the writer is not to spend himself in pottering with feet and syllables to the neglect of the weightier matters of the law. "Oratio non descendit ad crepitum digitorum." He will merely drop his ardour and check his spontaneity if he put matters like these in the foreground. But when rhythms present themselves in the progress of his work, he chooses one, he rejects another, he adds something here, takes away something there and goes on altering his order until the ear is satisfied, for it is not the selection of words but rather their place in the sentence that for the most part makes Rhythm. Regard must of course be had to the nature of the subject in hand. The artist in prose will make long syllables predominate when he is in the grave or sublime vein, short ones when he argues, jests or discriminates. But he must beware of too many shorts; he must not fill his sentences with the sound "paene puerilium crepitaculorum." Therefore he will not admit the Tribrach even in arguments or rapid descriptions, for what he gains thereby in *swiftness* he will lose in *force*, and his aim is to make his sentence run—not go by leaps and bounds. He will not fall into the mistake, made by Aristotle and his follower Ephorus, of attaching a superstitious value to some one or two feet like the paeon or dactyl, for the rejected feet will come into his composition whether he likes it or not, and every sort of foot is useful in its own place. Inferior ones—(presumably the tribrach and pyrrhic) he will hide away among the better ones. He will be specially careful about the end of the period,

for there must be nothing harsh or abrupt when the mind takes breath and when the hearer is most attentive, but he will not consider the rhythm of more than three feet from the close and only if these be less than three syllables each, otherwise he will land himself in metre. He will mind also the beginning of the sentence, though with less minute care, since there is nothing preceding with which it can clash.

From this rapid survey of his general position we see the sort of man we have to deal with in Quintilian. He does not, like Cicero, irritate us with large promise and small fulfilment. It is true there is not much as yet that might not be extracted from the last named writer, but it is when he comes to deal with details that we find Quintilian most valuable and suggestive. Thus there are three points noteworthy in his handling of the question of Rhythm within the body of the sentence. In the first place he fights shy of any attempt to specialize certain feet as good, either absolutely or in relation to the character of the discourse. And secondly, while holding that the beginnings and ends of periods are most important rhythmically speaking, he points out that within the sentence there are places, other than the ends of *incisa* and *membra*, where "the foot of the runner, as it were, though it does not stop, yet leaves a trace," and these natural divisions must be well begun and ended. For example, in the sentence "Animadverti iudices | omnem accusatoris orationem | in duas | divisam esse partes" there are four distinct parts marked by very distinct pauses (although the whole is pronounced in one breath), and each of these four parts is rhythmically finished. But, thirdly, there is a principle diametrically opposed to this, and at times rightly prevailing over it. There are sentences in which the ends of these natural divisions must not be considered by themselves alone, but in relation to the whole, so that the art is to leave them incomplete and faulty in order that the ear may be ultimately satisfied in the conclusion of the period. One instance is found in "ut adeas, tantum dabis, | ut cibum vestitumque introferre liceat, tantum; | nemo recusabat" when the suspended cadence at the pauses is far more effective than tamely rounded phrases. There is certainly something of promise here.

Like most other critics, however, he feels himself on firmer ground when he deals with the extremities of the sentence. He has not much to say on the beginning, beyond the curious statement that while a verse ending is very bad at the close of the period, it makes an excellent start for it, just as conversely the beginning of a verse is a very suitable ending. We may begin, but not end with such as "Etsi | vereor | judi | ces." (Trochaic Tetram). We may end but not begin with "In Afr | icâ | fuisse." He dislikes polysyllables at the close. Words like 'balnea | tori,' though the rhythmic equivalent of the admired Cretic and Spondee, make soft and weak endings, and even quadrisyllables like 'Armamentis' do not please him. Two dissyllables of equivalent value make a stronger finish. We are tempted, on the analogy of English words to conjecture that the accent has something to do with this, for we know that in an English quadrisyllable there are usually two accents, one of which is frequently weaker than the other. But, as will be seen, his reason is based on the time value of the Pause.

His analysis of possible Rhythmic endings is extremely thorough and systematic, but no good purpose would be served at the present time by any detailed account of it. Still, as it is a useful thing to do in studying English Prose, we may state his method in a word. He takes the Spondee, for example, as the final foot and considers the effect produced by placing a Dactyl, Trochee, Anapaest and so forth before it. So with the Dactyl and the rest, but it is to be noted that he does not regard any word over three syllables as constituting a foot. Something over forty combinations are passed in review, and he distinguishes their characters and values in cautious terms, the general principles that guide him being (1) that actual verse endings are to be avoided ; (2) that feet proceeding from a short to a long are sharper, while those that end in a short are gentler in their effect, and should be used accordingly ; (3) that a succession of short syllables is to be avoided.

Two curiously interesting points remain. He is convinced that all longs are not of the same value. Some longs are longer than others. The conventional length of a long is two beats, but to some he would assign a less value. For instance,

the last syllable of 'Timere' may be accepted as long by the laws of the *communis syllaba*, but the last vowel of 'Confiteri' is long by nature, and he feels that the difference between the two words at the end of a sentence is that between merely stopping and sitting down. The idea is not developed, but it has special value in relation to English Prose Rhythm, seeing that we have something very like what he describes in syllables of our language which bear a secondary accent. He opens up the question, too, whether all our short syllables are equally short, and whether some of our longs may not sometimes in the case of monosyllables for instance bear a value of three times, and so be the equivalent of a Trochee or an Iambus. If we ever reach the point of devising a machinery for exhibiting Prose Rhythm to the eye, this is a matter that must engage our attention.

The other subject is his doctrine of the 'Tempus Inane' or Pause with a Rhythmical value. He conceives that a natural pause of however short a nature may lengthen a final short as in "non turpe duceres." As it stands, this makes the close of an Iambic line and is therefore a bad sentence ending. But since there is a break after 'turpe' in the utterance, it virtually becomes a Spondee. It is on this ground that he prefers such an ending as "criminis causa" to one like "archipiratae," because there is a certain extra line latent in the divided words which is lost in the polysyllable.

This survey of ancient views on Prose Rhythm, which has stretched out considerably beyond what was at first intended, was undertaken, it may be remembered, in the hope of finding the answers to certain questions. Every one with an ear is conscious of the swing and Rhythm of a good Prose sentence; every one knows, too, what bad Rhythm is like. The Rhythmical effect obviously depends on the presence of what we call metrical feet. Are these metrical feet put together upon any principle in a sentence rhythmically good, or does any haphazard allocation serve the turn? This is the general form of the question. It cannot be better put than in Cicero's words, "qua ratione fiat numerosa oratio." The more special inquires whether the employment and predominance of certain feet has an appropriateness to the subject-matter of the

sentence. The first question refers to absolute beauty of form ; the second is relative to the thought or feeling that the words convey.

In estimating the value of the answers we have received from Cicero down to Hermogenes, there are one or two facts to be borne in mind. If the dicta appear unsatisfactory, we must remember that these ancient writers were for the most part professional teachers, and that the works in which the subject is handled were first and foremost practical in their nature. Now the professional teacher of Rhetoric ought first no doubt to be a competent critic ; he ought to be able to say what is good and what is bad, and, if possible, why it is good and why it is bad ; but he is bound to go further and formulate rules for his pupils. He has to say "This is the way in which certain effects are to be secured : you must do this : you must avoid that." When he comes to the subject of sentence Rhythm he finds it baffling from its immensity. The character and arrangement of sentences is infinitely varied so that he cannot make a collection of models and set his pupils to reproduce them : his precepts are usually in such vague and general terms as that the sentence should flow harmoniously to the close and so forth. On the other hand he can reach some sort of finality in the analysis of sentence endings. The possible permutations and combinations of the various feet can be tabulated and the ear will judge of what should be selected and what avoided in practice. Starting from this as a basis, some few have with more or less diffidence applied their principles to the endings of the various sections into which the sentence naturally falls, but it is usually with the consciousness that a very great deal is left unexplained, while Quintilian and Hermogenes in particular see that the principles of rounded endings is crossed by that of the suspended cadence in the body of the Period.

Hermogenes alone seems to have got hold of a practical principle containing some degree of verisimilitude when he lays down the law of the Dominant Rhythm, that is to say that in every sentence some one Ratio should predominate over the others and should be prominent at the close, so that one could say of any given sentence it is Dactylic or Anapaestic or other-

wise in character as the case may be. But if any one will take the trouble to affix Quantity or Accent marks to half-a-dozen Rhythmical sentences from as many English authors, he will find that the principle is of very partial application, especially if he insist on identity of feet and not merely on Rhythms of equivalent time values. The Iambus and Trochee are of equal times and of the same ratios, but the one is a rising and the other a falling rhythm, which one should expect to be antipathetic to one another. And again he will find a frequent difficulty in deciding between these very feet as dominant, for a writer constantly in order to avoid metre will on the one hand either insert a syllable, or, on the other, take in a tuck as it were, the result being, strictly speaking, a change from the one rhythm to the other, although the impression of the first Rhythm remains. Thus in Burke's sentence, "And | surely never | lighted | on this | earth, | which she | hardly | seemed to | touch a more delightful vision," we have strong Trochaic Rhythm, but the scansion of the last five words is doubtful. Again, what is the dominant Rhythm in Newman's "All this | is a vision | to dizzy | and appal | and inflicts | upon the mind | the sense | of a profound | mystery, | which is | absolutely | beyond | human | solution" | ? Of fifteen feet into which this may be divided, seven can be regarded as of the *βάσις* 1 : 1, but the movement of the amphibrachs and anapaests is so radically different that we have not reached firm ground for a decision as to the dominant Rhythm. Moreover in a great many instances it will be found that not one Rhythm is dominant, but two, and both are departed from in the cadence. In Macaulay's "Crime | succeeded | to crime | and disgrace | to disgrace | , till the race | accursed | of God | and man | was a sec | ond time | driven forth | to wander | on the face | of the earth | and to | be a bye-word | and a shaking | of the head | to the nations | " we have seven anapaests to three amphibrachs, but the last four feet give us three paeons of the type ~ to one anapaest. The Paeon, it is true, might be taken to be an anapaest with a hypercatalectic syllable, but even so the theory of a dominant *βάσις* would have to be surrendered.

This is the great drawback, therefore, under which the ancient writers laboured ; they felt bound in their character as



preceptors to lay down rules. But there is another attitude possible—that of the critic, who is under no such compulsion. He can discard the practical entirely. His aim in the matter is no more than to ask if the sentence is good or bad rhythmically, and if he can devise a machinery for exhibiting to the eye what pleases or displeases the ear he will do for prose exactly what scansion does for verse. He cannot get behind the judgment of the ear, and he must reconcile himself to abandoning the hope of much in the way of positive result. But, on the other hand, he can do an immense deal on the negative side, for he ought to be able to lay a finger of unfaltering decision on the cause of defective rhythm.

In regard to the question they were so fond of discussing—the value and quality of feet considered either absolutely or in relation to the thought or feeling of the sentence in which they occur, one can see very easily how the ancient writers were tempted to go far out of their depth—far, that is to say, beyond the simple facts concerning longs and shorts that seem fairly apparent. Take a sentence like Burke's "Animated with all the avarice of age and all the impetuosity of youth, they roll in one after another, wave after wave, and there is nothing before the eyes of the natives but an | endless | hopeless | prospect | of new flights of | birds of | prey and | passage | with appetites continually renewing for a food that is continually wasting." We are at once struck with the Trochaic movement in the middle and are tempted to think that no other would have quite so well conveyed the idea of abject despair. The very movements of the hands, when one labours under that emotion, are Trochaic in character. But if we attempted to generalise from this example on the subject of Trochaic quality we should soon find ourselves stultified. In this instance the movement is inextricably intertwined with the sound. When we think we are giving the effect of the rhythm pure and simple, we are really introducing considerations of sound and probably of sense as well. We have just had an example of Trochaic movement from the same writer in the sentence "And surely never lighted on this earth, which she hardly seemed to touch, a more delightful vision." The feeling here is totally different, and if anything were wanting to complete our dis-

comfiture, as showing how large a part is played in these matters by the personal equation, it would be supplied by Aristotle's well known objection to the Trochee on the ground that it is *χορδακχώτερ*, the measure used for an indecent dance! But the ancient writers felt called on as instructors to give instruction on this as on all other matters connected with and grievously have they erred. They were on fairly firm ground when they held that a preponderance of long syllables is suited to grave and elevated discourse; there is something too in the distinction between the characters of the rising and the falling rhythms and possibly a word might be put in for some of the speculations of Dionysius of Halicarnassus on a few of the outstanding feet, but more minute considerations seem for the most part to end in smoke. At the same time we should not refuse to listen to a critic of finer sensibility if in any particular passage he can show us the suitability of the rhythm to the matter. He is justified if he succeeds in convincing the majority of his readers; failure means that his view is subjective merely.

It ought now to be abundantly plain that if the question "*qua ratione numerosa fiat oratio*" is not to prove a wild goose chase, we must entirely renounce the didactic attitude. We must also give up as hopeless the question why certain conjunctions of rhythms are pleasing; we might as well try to explain why we are pleased with the conjunction of two colours or notes in music. Further, we must disabuse our minds of ideas as to the absolute superiority or inferiority of certain feet, except, perhaps, in so far as the lowly pyrrhic is concerned. On the other hand we may look for tangible results in running the cause of rhythmic blemishes to earth, and so long as we do not push speculation too far we may sometimes hazard a guess as to why certain preponderating rhythms or conjunctions of feet are good relatively to the passages in which they occur.


As this paper is purely tentative in character, and as we have arrived at some sort of an answer to the problem with which we started, namely, the limits to the analytical method in explaining the beauty of Prose Rhythm, there is obviously not much more to be said. But it may be useful to indicate

some of the methods and materials that have proved useful to the writer in studying the question, and from which results may be expected.

No precept has been more steadily dinned into our ears than this—that while Prose must have Rhythm it must not be metrical. Yet here and there remarks are dropped by the ancient writers which seem to imply that Prose has a metre of its own. Rhythm is measured time ; metre is properly nothing more than Rhythm cut into lengths. But Metre is constantly used in the sense of actually recognized Metres of Poetry. When it is said, for instance, that Prose must not be metrical, the meaning is that it must not fall into any of the regular verse metres. But when Quintilian says that there is nothing written in Prose which cannot be made into some sort of a verse simply because longs and shorts cannot be kept out of Prose, he need not be taken to mean that the verse is in one of the recognized metres. In any given Poetical metre, occurring in a Greek writer, for example, there are two requisites : first, the occurrence of a fixed number of feet in certain positions, these feet not being necessarily of the same *βῆμας*, (in the Iambic measure the *βῆμας* 1:2, and 1:1, both occur), and, secondly, the recurrence of the metre. The apparent exception of lyrical measure disappears if we accept the principle of scansion by musical values. English blank verse again is still more free in the admission of feet of different *βῆμας*, as any page of Milton will show. The only condition appears to be that the sum total of the *times* in each line should be equal, except in the occasional hypermetric line. Any half dozen words of prose therefore, though not corresponding to any recognized metre of poetry, become metrical if we repeat them, or their Time equivalents. And as a matter of fact there is nothing more familiar to us than such Prose Metre. It occurs in all balanced and antithetic structure. Here, therefore, is abundant material to our hand ; here we are instantly conscious of Rhythmic shortcoming. A certain expectation is awakened in the mind by the appearance of the first measure ; if the second does not balance it within certain limits of correspondence, the ear is disappointed. Aristotle, in one of his rare but always brilliantly effective metaphors, says that the truncated clause

often makes the reader stumble, for he is hurrying on to the conclusion of the measure which he has been led to anticipate, and the abrupt pause comes as a check which brings him to his knees. And in the same way if the second clause be too long the result is even more deplorable. Examples of so obvious a fact are hardly necessary, but the following sentence will illustrate what is meant. We have adequate Rhythmic balance in "He denied himself present enjoyment neither for the attainment of a greater good nor for the avoidance of a greater evil ;" it is ruined if we read, "Neither for the attainment of a greater good nor from caution." This, of course, is gross and palpable, and no machinery is requisite to expose the fault. We have almost verbal equivalence here besides metrical identity, but neither is necessary. Take for instance the wonderful balance in "Or ever the silver cord be loosed | or the golden bowl be broken | or the pitcher be broken at the fountain | or the wheel be broken at the cistern | where the Trochees of the first pair and the Paeons of the second are not in exact correspondence. Or again "(Saul and Jonathan) | were lovely | and pleasant | in their lives | and | in their death | they were not | divided. | " Here we have a balance of two amphibrachs and an anapaest, but by a beautiful metrical chiasmus the two amphibrachs end the second clause instead of beginning it, and we thus get the effect of the falling cadence. It is incredible that any one should wish to alter such cunning workmanship, yet a modern writer on Rhetoric, Dr. Alexander Bain, wished to read "and they were not divided in their death"!

What may be called the metrology of the Clause and Sentence stands at the threshold of the study of Prose Rhythm because in the balanced structure Rhythm is so obvious and obtrusive. We have to study the subject of Sentence Architecture, not with the idea of an exhaustive survey, for the types are endless, but with the view of getting a rough classification. One group for example might be called the Pyramidal with its variations. The simplest form of this is that in which the first clause in the rising rhythm is immediately succeeded by another in the falling. Or the rising rhythm may be separated from the falling by a single or double plateau instead of a point

or we may have a double pyramidal sentence like this of Ruskin's on Venice—"a ghost | upon the sands | of the sea | so weak | so quiet | so be//reft of | all but her | loveliness//that we might | well doubt | as we watched | her faint | reflection | in the mirage | of the lagoon // which was the | city | and which the | shadow | " where the first Pyramid is complete | at "loveliness." Its rhythm is Iambic and Anapaestic, followed by a Trochee and two dactyls; that of the second is mainly Anapaestic and Paeonic (of the type ) in the rising rhythm, with Dactylic and Trochaic in the falling. Lastly, the following sentence by Matthew Arnold may serve to illustrate the group of Lateral Structure. "Zion and | Babylon | are their A/thens and Rome | , their Id/a and O/lympus are | Tabor and Hermon,// Sharon | is their Tempe//: these | and the like | Bible | names can | reach their i/magi/nation, | kindle | trains of | thought and re/membrance | in them." Here the falling Rhythm predominates throughout.

The Balanced Structure is therefore one great source of *material* for studying Rhythm; another is the final feet of the sentence. This, however, has come up so frequently already that nothing need be added here regarding it.

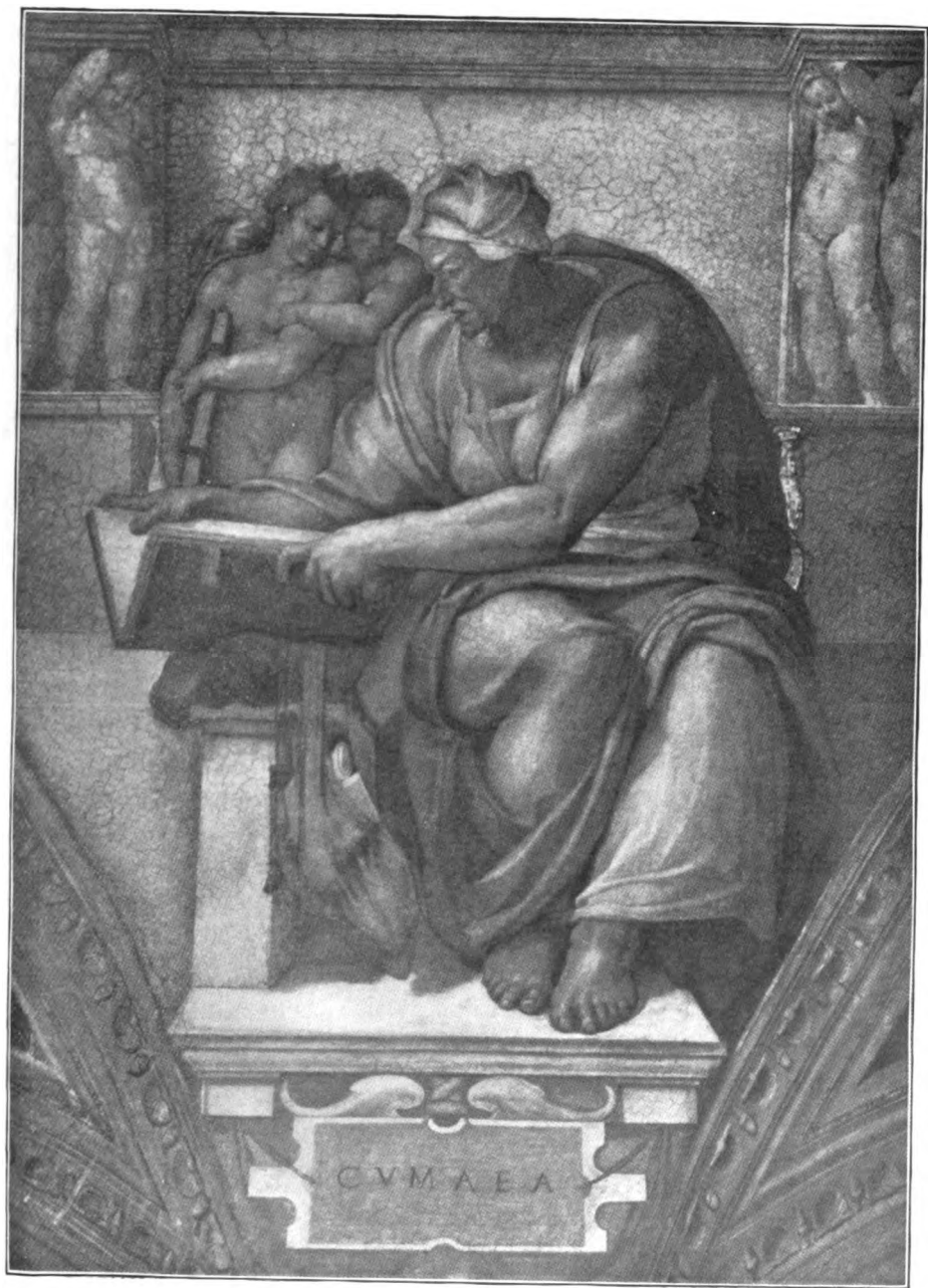
The best of all *methods* of studying Rhythm is by contrast. We may follow Cicero's example and alter good Rhythmic sentences to bad, by changing the order of clauses or by the substitution or addition of words and syllables. But translations from other languages into English are of even greater assistance in this way, because the sense of the original is the common basis from which they start and the comparison of the Rhythms is therefore perfectly fair. The revised versions of the Old and New Testaments, made when, as Arnold says, "style was no longer in the air" as it was in the beginning of the 17th century, afford a wonderfully rich supply of bad Prose Rhythms.

Lastly, a word on the machinery for Prose Scansion. It should be flexible without being complicated. The marks for long and short used in the scansion of Latin and Greek verse are objected to by many on the ground that they are misleading since they indicate absolute length and not accent. But a stronger objection lies in the fact that the system is not elastic

enough. In the case of words of more than three syllables there may be more than one accent, one of the two being secondary. And while there may be two syllables naturally long in a polysyllable, we do not in elocution give them the same value. If a word of five syllables have an accent on the first there may possibly be three accents, one being secondary. The system proposed by Ellis is extremely complicated, but some modification of his series of 0, 1, 2 to represent syllables without accent, with a secondary accent and with a main accent will probably be found satisfactory. It is to be remembered that by accent is meant both the natural verbal accent as well as the sentence accent, or emphasis required by the meaning, which may fall even in words as insignificant as the definite article, in this case counted long. The scheme should lend itself to distinguishing short accented syllables from long accented ones, because it is the presence of these latter in large numbers that yield the finest results, and the fact should be made apparent at once. Again Quintilian is probably right in thinking that longs are not all of the same value. Long monosyllables, for instance, followed by a pause might even have the value of a Trochee or an Iambus. The pause itself too requires some mode of representation. In the case of light monosyllables probably some are in value less than the standard "short" from their being always pronounced rapidly. These are some of the problems that have to be faced in devising an adequate machinery for Prose Scansion. They involve some trouble to solve, but the trouble is worth while taking by any one who is interested in this fascinating subject.

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University of Aberdeen.



THE CUMÆAN SIBYL.

## NOTES ON OUR ART COLLECTION.

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### I. MICHELANGELO (1475-1564).

THE first thing to consider is the Michelangelesque manner of treating the human figure, the basis it had in scientific or technical study, and the way in which the artist used it to express his thoughts. Michelangelo had studied the life of the body as the great sculptors of Greece had studied it, with the same thoroughness and enthusiasm. In his hands as in theirs it is of the same value as the face or head in expressing the intellectual character and the soul of his subject. He has nothing, certainly, of the moderation and calm self-restraint with which the best Greek art accepted the limits of nature. You must take the spiritual force of his conceptions and the transcendent grandeur of his figures as some compensation. The endeavour to express transcendent power, for example, in his Prophets and Sibyls, draws him beyond nature into something which you may call exaggeration or higher interpretation according to your sympathies. But his knowledge is perfect. These ideal forms of his are founded on a profound and scientific knowledge of the laws of life which shows itself in every part, from the general scheme of the figure to the minor details of muscles and internal structure. His grand manner was no mere formal ambition in him, as it was in some of his imitators, but the natural language of a soul struggling with conceptions so profound as to require an almost unnatural and superhuman form for their expression. Look at his Cumæan Sibyl with the strange, terrifying mass of her body, and her lean, grim, strenuous visage reading unchangeable fate out of her volume. She is almost masculine in the muscular salience and strong curves of her figure. The powerful shoulder blade, the arm awful in its strength yet betraying something of the lean and wasted outline of age, the nervous power in the bent forefinger, the lean exposure of the muscles of the neck, the withered cheek and sinister lines about the chin and mouth form a strange combination. It should be an old crone, a hag mixing potions and gathering poisonous simples in a drama of Shake-



speare's. But it is not ; it is a propheticess gifted with something like immortal and superhuman force even in the decay of her mortal frame. Under less skilful hands the gigantic mass of the bust and arms would seem discordant and monstrous, but Michelangelo has succeeded in giving it not only something of the beauty of vigour and strength, but even, as Vasari notes, a certain grace. The figure, though it shows the relaxed and blunted line of age, has still symmetry and shapeliness. Michelangelo rather loved such paradoxical feats as forcing nobility and grace from strained attitudes and combinations which other men would have found intractable.

That is one kind of prophetic or Sibylline inspiration, the dark early Pagan, or demoniacal. Quite another is seen in his Delphic Sibyl, the young and beautiful woman who, as Euripides describes her, chants the rhythmic oracles of Apollo to mortals and represents the brighter and humaner inspiration of classic Greece. Yet in the Delphic Sibyl, too, you have some of the traits of the Cumæan—softened by the beauty and freshness of youth. She is young, fair of face, and apparently little more than a medium ; she looks round with parted lips and half-startled expectant eyes, as if she saw something which announced the coming of the god. But her figure, which is encased in the heavy sculptuesquely modelled folds of her garments, has nothing very feminine in its expression and seems almost too set and mature. The muscular anatomy of the arms, also, is a little too obtrusive for grace. Still they are beautiful, as is, in a yet higher degree, the superb virginal force of the face. What Michelangelo meant precisely by his Delphic Sibyl might be difficult to define. It is not lyrical inspiration ; he has treated that in another form. Probably it represents some conception of oracular religion amongst the Greeks which he may often have heard discussed by the elegant scholars and Platonists who met at the table of Lorenzo the Magnificent, his early patron.

The *Jeremiah* of Michelangelo is another example, hardly less striking than the sculptured Moses, of the manner in which the strength of the artist's conception urged him beyond the modesty of nature, even when respecting her laws. The massive figure and sunken, brooding head of the Hebrew



**THE DELPHIC SIBYL.**

prophet give at once an unusual impression of gigantic strength and bulk combined with the contemplative spirit. The whole pose and anatomy of the body express profound melancholy. The head supported by the right arm is heavily leant on the right knee. The left side, the left arm and hand, the wide relaxation of the left knee, express a moment of languor and despondency. The lower limbs are enormous. Yet the outline of this huge figure is tenderly managed so as to convey the impression of a benignant strength, of a fine humanity. Nothing could be farther from the grotesque animality of a fat giant.

Those strange figures of Prophet and Sibyl illustrate how intimately the passion of idealistic thought blends with the passion of art and the passion of scientific knowledge in the work of Michelangelo. The scientific bent of his mind indeed is evident enough in other ways. He was almost as great in architectural creation and construction and in engineering as he was in sculpture and painting. He raised the dome of St. Peter's at Rome and built the fortifications of Florence. But the art that had all his heart was sculpture, the purest and most ideal representation of the human figure. The intellectual centre of his life lay in the kind of Christian Platonism which so frequently finds expression in his sonnets. It is no mortal beauty, he tells us, which he sees there, but something of which the fading material form is only a partial revelation. Here is the concluding tercet of one of his sonnets:

Nor hath God deigned to show Himself elsewhere  
More clearly than in human form sublime,  
Which, since they image Him, alone I love,

He almost creates a special form of art to satisfy this conception and expends all his science in finding a naturalistic basis for it. Hence there is never anything that is sensuous and even little that is distinctively feminine in the expression of his line.

"A great soul in a degenerate age," says Taine. He looked on with scornful indignation at what he could not help, the political and moral debasement of his country. He fell back ever more on an austere renunciation of the ordinary pleasures of life and sought refuge in the solitary grandeur of his con-

ceptions. The spirit which impresses itself on such works as the "Moses," the sculptures on the tombs of the Medici in San Lorenzo and the Last Judgment, while it is profoundly religious, has a certain severity and bitterness, even something like a disdain of humanity. He disdains to use its common mould for any noble purpose. Vasari quotes a quatrain which Michelangelo himself composed on the famous figure of Night which decorates the tomb of Giuliano dei Medici. The figure is supposed to be replying to a neatly turned compliment that you need only touch and wake it to make it live. The first two lines are as follows:—



JEREMIAH.

Piace il sonno e piu l'esser di sasso,  
Mentre che il danno e la vergogna dura.

"Welcome is sleep, and still more welcome that it is of stone, while the ignominy and decadence exist."

The condensed bitterness of the first line is like the stroke of his own powerful chisel upon the marble. Vasari's eloquent eulogy of the "Night" shows us how greatly contemporaries admired its art, and also how little they understood the depth of that sombre melancholy which is expressed. "Who ever saw in any other statue," writes Vasari, "such a power of expressing not only the repose of one who sleeps but the grief and melancholy of one who has lost something great and honoured." He means the loss of Giuliano dei Medici. That is nearly on a level with his true but very limited characterization

of the Cumæan Sibyl as showing "exceeding grace" of line. Yet Vasari was a great friend of Michelangelo's, an eminent critic of art, and himself an artist of repute. But the age did not theorize its art very deeply.

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## II. RAPHAEL.

The modern ideal of perfect beauty in contour and rounded form, with as much expression of spirit as will not perturb the perfect grace of the line in repose or movement, to realize the moment in modern art when that received its utmost expression is to realize the supremacy of Raphael. Before him art is approaching that ideal in slow steps with Giotto, Angelico, Masaccio, Fra Lippo, Perugino and others. After him this perhaps limited ideal of beauty is never again sought so purely and exclusively by any of the great masters; the weight of intellectual life which Michelangelo and Lionardo introduced into their work had made that impossible. And Raphael's ideal in the hands of lesser men was apt to degenerate into languor and insipid sweetness.

Take a figure from Botticelli's *Spring*, say one of the three graces, and note the obvious defects which exist in that



BOTTICELLI'S *SPRING*.

still primitive attempt to express the ideal of beauty in the human figure. The line has expressional force but much is wanting there both in the way of scientific knowledge and artistic power for a perfect conception and expression of beauty. Com-

pare the Graces of Botticelli with the figures in the "Marriage of the Virgin," an early work of Raphael's, painted before Michelangelo and Lionardo had taught him anything of their pride of science and intellectuality. The beautiful and noble lines of the figures, the perfect balance and symmetry of members, the natural grace of the attitudes, the finely spaced and harmonious composition, indicate the perfection of a certain phase in art, or at least its approach. For these remain the

unique charm of Raphael, although his maturer work, the "Sistine Madonna," the "Transfiguration," and the great frescos of the Vatican, the "School of Athens" and the "Disputa" combine with this Raphaelesque grace more intellectual expression and conscious power of scientific method. Even in these mighty frescos where the space is crowded with figures full of intellectual significance or passionately dramatic in their action, the dominant charm is that of supreme grace of figure and general harmony of composition. You can learn everything else, better, perhaps, from some other of the masters, but this, at its highest, you must learn from Raphael. Michelangelo has far more reach and



THE SISTINE MADONNA.

soar, Lionardo far more penetration; both much exceed Raphael in science and knowledge, but in Raphael the specific qualities of the artist, of the painter, are in perfect poise.

Much of his work reflects and illustrates a superficial side of the Renaissance mind. The feeling in his religious subjects, for example, is not profoundly religious. His Madonnas are mostly only young mothers. In the "Transfiguration"



THE DISPUTE CONCERNING THE SACRAMENT.

there is more dramatic display and pride of science than devout awe; and in the "Burning of the Citadel" the attention of the spectator is concentrated not on the miracle, which is shown far off in a diminished back ground, but on dramatic groups of figures escaping from the fire.

But his portraits of living personages show the fine observation of life and sound judgment of character that underlay his artistic power.

J. CAPPON.

## HAIR.

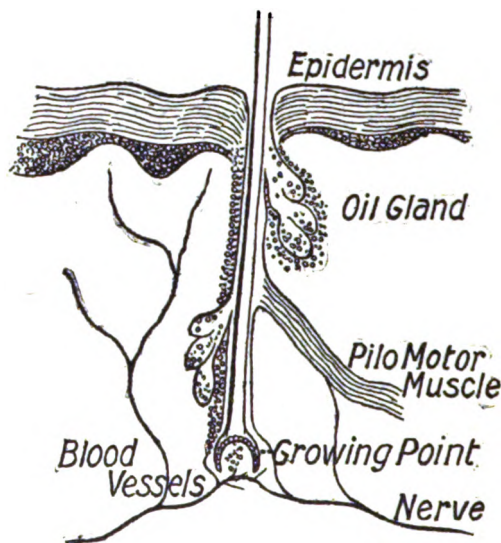
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**T**WO kinds of hair are found growing on the human body. The first is that ordinarily known as hair or whiskers. But there is a second kind found growing all over the body, and easily seen on the back of the hand. This is known as lanuginous hair. It differs in several respects from that on the head. In the first place it is very much finer; it is also very short and grows little or none during the lifetime of the individual. Moreover, its function is different. While it is quite clear that the function of ordinary hair is to protect the head and face, it is not so clear what the function of lanuginous hair is. On primitive man it may have been more abundant than on his later descendants, and if so it would, of course, be a valuable aid in keeping out the cold; but written history is silent upon this point, and accordingly we are dependent upon the opinions of the scientists as to the present and past functions of these insignificant objects.

According to the evolution theory man was probably descended from a hairy ape-like ancestor, arboreal in his habits, with pointed ears and a long tail. If this be so, then the lanuginous hairs of the human body are good examples of vestigial organs. They are the dwarfed and puny descendants of the giants of the forest. When man resorted to wearing the skins of other animals in order to protect himself from the rigours of winter, he took the first step towards the entire loss of his hair. And there are scientists who declare that if man goes on wearing the close, warm, tight-fitting hats and caps of to-day, it is only a question of time until the hair will disappear "from off the top of his head."

But to return to the two kinds of hair. They are not radically different. As indicated above, they differ only in length, fineness, growth and function. When we come to look at resemblances we find that these are very striking. Both are inserted in a hollow in the skin which is called a follicle; both grow out from the top of an elevation in the skin known as a

papilla ; both have muscle fibres attached to the side of the follicle ; both are nourished by a plexus of blood capillaries ; both have a double nerve supply ; and both have a gland attached to the side of the follicle which pours out sebum, a kind of oil near the root.

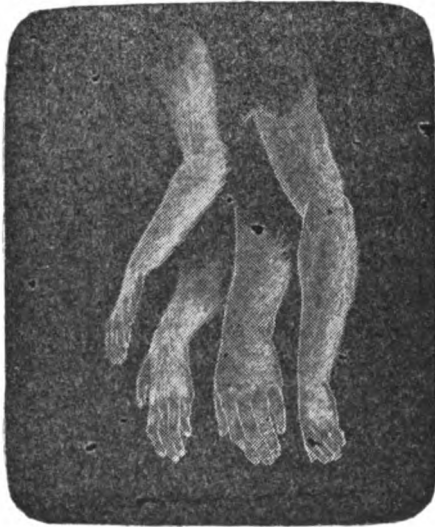


Of all these accessories, perhaps the most wonderful is the muscle. What can be the use of a muscle as an attachment to a human hair? We know of course that muscle has only one function wherever we find it in animal life. Muscle contracts and so gives rise to movement. If this be the invariable function of muscle, then the muscular fibres attached to human hair follicles must possess a similar function. These pilo-motor muscles, as they are called, must be attached to the hair follicle to cause movement of the hair. But who ever saw the hair on a man's body or head move? On the authority of Virgil we know that the hair on Aeneas' head stood on end the night Troy was captured by the Greeks; but to-day, hair standing on end is a sight largely confined to the hair on a dog's back when he is pugnacious. Nevertheless, the muscles are there as an attachment of the hair follicle, and accordingly, for want of a better explanation as to their function, we must again fall back upon the opinion of the scientists—the hairs



were formerly abundant on the body of man, and he was able to make them stand erect just as some animals can at the present day.

These pilo-motor muscles *are*, however, functional to-day on the body of man. In taking a cold bath there are very few people who have not noticed what is generally known as "goose-flesh" on the arms and legs. What is this goose-flesh? Even a superficial examination will bring out the fact that this goose-flesh consists of a large number of pointed elevations closely resembling the elevations on the skin of a plucked goose. Hence the name. Moreover, these points on the human skin are seen to be arranged in an orderly manner. They run in more or less parallel or in curved lines just as the



feathers do on a fowl. In short, the hair tracts on man and the mammals resemble in a general way the feather tracts on a bird. And, strange to say, there is a further resemblance between them. For, just as birds can "ruffle up their feathers" through the contraction of a muscle attached to the feather follicle, so, some mammals can make their hair stand erect through the contraction of the pilo-motor muscles. Here, then, is the scientific explanation of goose-flesh on the human skin. The pilo-motor muscles, which are attached to the lanuginous

hairs of the body, contract through the influence of a cold bath, and in contracting produce the small pointed elevations on the skin—the goose-flesh.

Hairs are said to be an outgrowth from the skin. If this be so, we would expect to see in hair some evidence of its origin. Now we know that the skin consists of two layers, an outer one, the epidermis, and an inner layer, or true skin. This latter consists of a network of muscle fibres, nerves, blood-vessels and sweat glands, all held together with fibres of connective tissue. What elements of the hair are furnished by these two layers of skin? In answer, it may be said briefly that the outer covering or *cuticle* of the hair comes from the epidermis, and the *medulla* or core of the hair comes from the true skin. It is the medulla which contains the coloring matter of the hair ; the cuticle is colourless.

As has been stated already, every hair grows out from a slight elevation in the true skin known as the papilla. These papillae are richly supplied with blood capillaries for the nourishment and growth of the hair, and they have connected with them also nerve fibres which control the nutrition of the hair follicle, and confer upon hair its sense of touch.

Hairs keep on growing at the root, just where they stand upon the top of a papilla. This junction of root and papilla is known as the *growing point* of the hair. When this growing point dies the whole follicle dies, and all the “hair restorers,” “hair tonics,” or vulgar hair oils in the world cannot make the hair grow again. As well try to make hair grow upon a marble statue. When hair is pulled out from the skin of a person in vigorous health it grows again, because this growing point is healthy. And in a similar way, when hair falls out as it does frequently from want of proper care, or after some serious illness, it will grow again of its own accord if it gets half a chance ; but no power on earth will make hair grow upon a bald, shiny pate.

Hair generally begins to turn grey first upon the temples. For this reason the underlying bone of the skull is at this point named the *temporal* bone. In most people, grey hairs show themselves about forty years of age. But there are wide variations in time. The immediate cause of grey hairs is in the

failure of the cells at the *growing point* to manufacture the pigment necessary to give the colour to the hair. When this change takes place at mid-life it marks a gradual lowering of the vitality of the skin, and, to some extent, of course, a decadence of general vitality.

In estimating, however, the immediate cause of baldness and of grey hair, a very important factor must always be taken into account, namely, heredity. Grey hairs and baldness may come on at twenty-five or thirty, instead of at forty-five or fifty. On the other hand, some people apparently never become bald or grey. In the one case the hair undergoes a rapid change, no matter how much care may be bestowed upon it; in the other case, the hair remains thick and almost unchanged up to old age, even when no special care is given to it. These anomalies in the colour and growth of hair are to be accounted for by heredity. The prematurely bald pate and the luxuriant head of hair, the faded and the lasting, when much removed from the average, are all to be accounted for on the ground that a man or woman inherits these peculiarities from parents or near relations. A bad inheritance, however, should not discourage anyone from taking the best possible care of the hair. On the contrary, it should stimulate those who possess these weaknesses to take special precautions to preserve the hair, just as a man who inherits a weak heart or delicate lungs should take special care to develop and strengthen these organs. A great matter in caring for health is to learn one's bodily limitations.

This brings us to the second part of my subject, namely, the hygiene of the hair. The care of the hair can only be understood after its function has been ascertained through a study of its anatomy and physiology. Now the exudation of the natural oil of the sebaceous gland is one of the prominent things in the physiology of hair. Dust particles in the air stick to this natural oil, and in a short time cause the hair to become very dirty. Hence, the first rule for the care of the hair is to wash it. This should be done about once a week with luke-warm water and castile soap. Some lady reader may object that washing a long and heavy mass of hair once a week is a tedious piece of work, and I admit it. But, nevertheless,

the washing should be done, even if the hair has to be cut short in order to reduce the labor of washing. The best time for the washing is just before going to bed, so as to reduce the risk of catching cold. It is surely unnecessary to add that the hair should be thoroughly dried. If not, the evaporation reduces the temperature and a "cold" results. To prevent all chance of this it may be necessary to bind a handkerchief, or light towel, round the head.

Another important rule is to comb and brush the hair three or four times a day. This removes dandruff and the friction reddens the scalp, that is, brings more blood to the roots of the hair. Now the great work of blood is to carry repair and waste material to every part of the body. Consequently, anything that improves the circulation of blood to the roots of the hair carries in more nutritive material and carries away the dead waste. Brushing brings more blood to the scalp and to this extent tends to promote the growth and vigour of the hair. Massage of the scalp has the same effect, and this must be practised also, if one would care properly for the hair. It is surely not necessary to add that both combs and brushes should be kept thoroughly clean, or else the labor of washing and brushing the hair would be in vain. Nor should it be necessary to say that the combs and brushes provided in public wash rooms should never be used, unless a man is quite indifferent to the chances of catching some disease of the scalp. Equally unnecessary should be the rule not to patronize any barber shop in which the proprietor shows the slightest carelessness or indifference to keeping his combs, scissors and brushes perfectly clean and free from infection of any kind.

Is it worth while to give advice regarding the curling of hair? It is exceedingly doubtful. This article, however, professes to give advice, and so my advice to women is not to use curling tongs. The heat kills the hair, and dead hair tends to fall out. If you must curl the hair, use soft silk rags with which to do it. Sheet lead and hard paper are almost as bad as the curling tongs.

A word of advice to men. Don't wear tight-fitting heavy hats or caps. These impede the free circulation of blood to the scalp, and as a result the hair is not properly nourished, nor is

the dead waste carried away. The growing root is suffocated through lack of oxygen, and in the end the hair dies and falls out. Hats and caps should be light and well ventilated. Women's headgear is more sensible than man's, and as a result women's hair seldom falls out as compared with a man's. Delicate people may be compelled to wear somewhat heavy hats and caps, but vigorous people should never do so.

Finally, a word or two regarding the removal of superfluous hairs from the face. This can be done most effectively with an electric needle. The needle is run down the side of the hair into the follicle until the point reaches the root. Then a current of electricity is turned on for a few seconds. The growing point is killed, and the hair can be easily pulled out. Each hair must be removed separately. The process is a tedious one, but in the hands of an expert it gives perfectly satisfactory results.

A. P. KNIGHT.

## NOTES ON "THE N-RAY PROBLEM."

ONE would naturally suppose that a question as to the objective existence of a physical phenomenon would be one that Science could settle easily and definitely by a direct appeal to experiment. It is in consequence of this idea that the scientists of to-day feel so uneasy in the controversy that passes by the name of "The N-ray Problem." As we shall see, we have one school of physicists who not only affirm the discovery of a new kind of radiation, but claim to have obtained the most precise measurements of its constants, and to have found most marvelous properties possessed by it. The rest of the scientific world, on the other hand, are able to obtain the effects only in part, and even this part they hold to be subjective.

In giving a synopsis of the position of both sides I would call attention to the fact that positive results obtained by such an eminent observer as M. Blondlot require elucidation as well as denial. Mere negative results cannot set the matter at rest unless there is also forthcoming an explanation of the effects described.

A year ago last May M. R. Blondlot, of the French Academy of Sciences, while experimenting on the velocity of propagation of the X rays, discovered a new kind of radiation that will penetrate thin aluminium and card board, but that is stopped by the thinnest film of water. These were named the N-rays, after the town of Nancy, the place of their discovery. They have the peculiar property of increasing the luminosity of faint sources of light. For example, a small blue electric spark is rendered sensibly brighter when the N-rays are concentrated on it; a small blue gas flame grows whiter; a faintly illuminated strip of paper appears to reflect more light, or a feebly phosphorescing surface seems to increase its emission. It is these phenomena, particularly the last, that are used as tests for the presence of the rays. It is to be noted that while the rays can increase the phosphorescence of a calcium sulphide screen they do not seem able to excite it. Screens, therefore, are exposed to daylight before being used for testing.

It has been found that N-rays are emitted by Auer mantels, by Nernst lamps, and even by bricks and flints that have been in the sunlight. The rays are regularly reflected from polished surfaces, and are scattered from rough ones. They traverse thin sheets of aluminium, wood, calcite and paraffin, but are stopped by rock-salt, lead or water. They are refracted by prisms of quartz or aluminium, and lenses of these substances are made for the study of the rays. Quartz, calcite, glass and some other substances possess a remarkable power of "storing" the N-rays, as the following experiment illustrates : An Auer lamp was surrounded by a sheet-iron cylinder having an aluminium window to let the rays pass. These were concentrated on a calcium sulphide screen by means of a quartz lens, and the phosphorescence of the screen was observed to increase. The lamp was then removed, but the screen maintained its action until the lens too had been taken away. On replacing the lens the illumination increased again. It seems that the lens had "stored up" some of the rays, or had itself become a source, due to the passage of the radiation through it. Lenses of dry wood or aluminium do not show this effect, but bricks and pebbles radiate for hours after being exposed to sunlight.

The rays were next dispersed by an aluminium prism and eight well defined radiations separated. Gratings were made and the wave length of the rays found to be from fifty to one hundred times shorter than that of yellow light. Bagard finds that they behave like light waves in a weak magnetic field, but that their plane of polarization was rotated from twelve to forty-five degrees in a field that would only have rotated light through four minutes.

In working with the N-rays Blondlot discovered a most peculiar effect, that they appear to exert on the eye itself. They seem to increase the sensitiveness of vision for faintly illuminated objects. For example : "A clock face in a darkened room was barely visible and appeared as a gray patch to the observer. This became clearly outlined and the hands distinct when a brick, previously exposed to the sun, was brought up toward the eyes. This occurred even when the brick was wrapped in black paper." The same effects were obtained by holding a cane before the eyes and bending it, causing it to

give off N-rays. Files, graving pens and other metals that had been subjected to pressure gave off copious supplies of N-rays and acted as above. Even a tempered knife blade from a Gallo-Roman tomb and other ancient objects gave off rays as freely as modern steel.

Blondlot next discovered that there was a second variety of rays—now called “the  $N^1$ -rays”—and that these caused a decrease in the apparent light from a screen. They seem to occupy the more refrangible end of the “spectrum” obtained by an aluminium prism. They are emitted by bodies in a state of tension. N-rays, on the other hand, are emitted by bodies under pressure.

Next came an announcement that while the N-rays increased the light given off from a screen in a direction normal to its surface, they diminished that given off tangentially. The  $N^1$ -rays behave inversely, increasing the tangential at the expense of the normal emission.

J. Becquerel claims to have separated the radiations into types exactly corresponding with the  $\alpha$ ,  $\beta$  and  $\gamma$  rays from radium,\* except in that the N-rays may be refracted by a metal prism. He says further that the magnetically non-deviable portion of the radiation—except in the case of rays from a Nernst lamp—will not cause any change in a calcium sulphide screen, but shows that this portion may be transformed into N-rays by passing it over a radio-active substance giving off the  $\beta$  radiation ; or it may be changed into  $N^1$ -rays by subjecting it to the action of  $\alpha$  rays.

Not only do bent canes and stretched wires give off these radiations, but the nerves and muscles of living organisms may act as sources. These effects, Dr. Charpentier claims, are not due to any increase in temperature (which would cause an increase in the glow), for they may be obtained even through screens of wood, and may be produced from the muscles of frogs whose temperature is kept below that of the laboratory.

A peculiarity of the N-rays seems to be that they are capable of being transmitted along a wire. If one end of a wire be coiled about a faintly glowing screen, and if a source

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\*It is difficult to see how this agrees with the rays having a definite wave length.—B.



of N-rays be approached to the other end, the screen brightens. If the wire be cut, the screen loses light but regains it on connecting the wire ends. This occurs even if the connection be through a condenser. Transmission has been obtained up to ten meters—the time required to transmit the effect increasing with the distance. The rays seem to travel in surges, as the screen increases its light in an oscillatory way. These “waves” were observed by connecting a screen to a source of radiation by a thread that had been dipped in a collodion solution of phosphorescent sulphide. Waves of increased luminosity were seen to run forwards and backwards along the thread, with a period of many seconds. Bichat claims that the connecting wire must not have any sharp bends or the rays are there refracted out into the air.

Charpentier says that the rays affect all of the senses ; an increase of sensitiveness accompanying the N-rays, and a decrease following exposure to the  $N^1$ -rays.

But, perhaps, the most incredible report is that published by Charpentier in the *Comptes Rendus* of March 21st, 1904, Screens were formed of a thick layer of an alkaloid, with a thick patch of sulphide at the centre. A selective action was observed, the screen being more influenced by rays from some organs than by those from others. The organ that modifies the phosphorescence most is that which manifests the strongest affinity for the alkaloid employed. For instance, digitalis, which selectively affects the heart's action, when made the basis for a screen shows the contours of that organ more clearly than a simple screen.

It also appears that the emission of N-rays may in many cases be stopped by anaesthetics. Vegetables, sand, steel balls and other objects cease to emit N-rays in the presence of chloroform. J. Becquerel found also that plates of aluminium, copper and quartz, which are normally transparent to the rays, become opaque if subjected to ether vapor. Glass, cardboard and wood do not succumb.

It is hoped that the foregoing account will give a fair idea of the kind of work done by the French physicists in this department of inquiry. The range of experiments is broad.

The numerical data is not only definite, but the results of one observer are in many cases confirmed by those of others. If it were not for the experience of physicists of other than the French school we would hail the discoveries of Blondlot and his followers as a great forward step into the unknown. But the letters of Burke and Campbell-Swinton in England, of McKendrick and Colquhoun in Scotland, of Zahn, Rubens and Lummer in Germany, of Dr. Schenk of McGill, and of R. W. Wood of Johns Hopkins, call at least for a reconsideration of the whole set of phenomena.

Many physicists, as Burke and Campbell-Swinton, have repeated Blondlot's experiments, using even the dimensions of apparatus that he suggests, but express themselves as "unhappy" in that they cannot obtain confirmatory results. Swinton writes: "Personally I have repeated M. Blondlot's experiments, but I have not been able to discern the slightest trace of any of the remarkable phenomena that he describes. . . . . In order to get away from personal physiological idiosyncrasies we have also applied delicate photographic tests, but without result, and as a general conclusion I am inclined to think that M. Blondlot's observations must be due, not to physical but to physiological processes; and, further, that these are not operative in the case of all persons."

Prof. O. Lummer has discussed the problem in a paper read before the German Physical Society. He says: "Without wishing, for the present, to dispute the objective existence of the N-rays, I should like to bring forward the fact that a whole set of M. Blondlot's experiments may be almost exactly imitated in their effects without employing any source of illumination whatever." He points out that it has been known for some time that the system of rods and cones in the retina is the structure which is sensitive to light. Recent work tends to show that the function of the rods is (1) the colorless vision of the color blind, (2) the non-perception of color in dim light, and (3) the perception of blue in stronger light. The cones on the other hand are used in bright light and transmit the sensation of color. It is known, also, that the *fovea centralis*, or area of most distinct vision, contains cones only and no rods. Hence it follows, that in gazing directly at a

small object the rods are excluded ; and that for faint illumination one can often perceive an object by looking slightly to one side of it, the object being totally invisible for direct vision. Of course, for this one must use a luminous surface so small that its retinal image shall fall entirely in the *fovea* ; and Lummer says that the screens considered best by Blondlot fulfil this condition. He continues :—“ Before bringing one’s attention sharply on the screen one sees it quite distinctly, but after one introduces a lead plate to cut off the supposed rays, one concentrates the vision on the screen, and as its image falls now only on the fovea it appreciably darkens.” This argument, I think, cannot be held to apply ; for by the same reasoning there should be no sensation of the brightening of the screen when the lead was removed.

To try to overcome these difficulties Swinton and others have resorted to photographic tests, but with varying success. Zahn has tried similar experiments, using a selenium cell as a detector, but failed to obtain any result. Le Roux has studied the appearance of a luminescent surface when no rays were falling on it. He records that it gradually loses brilliance for about thirty seconds, when a stationary condition is attained. A cough, or a shout, or a gentle pressure on the eye, is, however, sufficient to restore the initial brightness. The inhalation of small quantities of chloroform or ether vapor has a marked effect in lessening the apparent brilliance of the screen. These effects, he points out, must be guarded against by investigators.

The evidence that apparently carries the most weight against the rays is contained in a letter from Prof. R. W. Wood, of Johns Hopkins. He recounts his experience in one of the French laboratories and tells how he thought he obtained evidence in a way of which few would care to boast. The more important paragraphs of this letter are as follows :—

“ The inability of a large number of skilful experimental physicists to obtain any evidence whatever of the existence of the N-rays and the continued publications of papers announcing new and still more remarkable properties of the rays, prompted me to pay a visit to one of the laboratories in which the apparently peculiar conditions necessary for the manifestation of this most elusive form of radiation appear to exist. I went, I must confess, in a doubting frame of mind, but with the hope that I might

be convinced of the reality of the phenomenon, the accounts of which have been read with so much scepticism.

"After spending three hours or more in witnessing various experiments, I am not only unable to report a single observation which appeared to indicate the existence of the rays, but left with the firm conviction that the few experimenters who have obtained positive results have been in some way deluded. \* \* \* \* \*

"The first experiment which it was my privilege to witness was the supposed brightening of a small electric spark when the N-rays were concentrated on it by means of an aluminium lens. The spark was placed behind a small screen of ground glass to diffuse the light, the luminosity of which was supposed to change when the hand was interposed between the spark and the source of the N-rays.

"It was claimed that this was most distinctly noticeable, yet I was unable to detect the slightest change. This was explained as due to the lack of sensitiveness of my eyes, and to test the matter I suggested that the attempt be made to announce the exact moments *at which I introduced my hand* into the path of the rays by observing the screen. In no case was a correct answer given, the screen being announced as bright and dark in alternation when my hand was held motionless in the path of the rays, while the fluctuations observed when I moved my hand bore no relation whatever to its movements. \* \* \* \* \*

"I was next shown the experiment of deviation of the rays by an aluminium prism. \* \* \* The positions of the deviated rays were located by a narrow vertical line of phosphorescent paint, perhaps 0.5 m.m. wide, on a piece of dry cardboard, which was moved along by means of a small dividing engine. It was claimed that a movement of the screw corresponding to 0.1 m.m. was sufficient to cause the phosphorescent line to change in luminosity as it was moved across the N-ray spectrum. \* \*

\* \* I was unable to see any change whatever in the brilliancy of the phosphorescent line as I moved it along, and I subsequently found that the removal of the prism (we were in a dark room) did not seem to interfere in any way with the location of the maxima and minima in the deviated (!) ray bundle.

"Then I suggested that an attempt be made to determine by means of the phosphorescent screen whether I placed the prism with its refracting edge to the right or left, but neither the experimenter nor his assistant determined the position correctly in a single case. (Three trials were made.) This failure was attributed to fatigue." \* \* \* \* \*

The letter certainly looks damaging and one reads it with the conviction that the N-ray effects are purely physiological. But when one remembers that these men are working practically at the limit of sensibility of their methods, and when one recalls how perilously close the effects sought are to those purely ocular phenomena quoted by Lummer, one does not wonder that they failed to rise to Wood's tests.

But is there any hope of reaching solid ground in this subject? I think there is. Mr. F. E. Hackett recently communi-

cated a paper to the Royal Dublin Society "On the Photometry of the N-rays," and in this we seem to get to a firm foundation at last. It begins by pointing out that it is useless to expect to see the effects with a brightly phosphorescent screen—at least without special training. A very dim screen must be used. The mere remembering of a definite brightness would be practically impossible, but a method of distinguishing an outline whose definiteness depends on brightness leads to a quantitative method. A diaphragm with two vertical slits, separated by their own width, is used and the screen viewed through it. When held near the eyes the slits appear distinct, separated by a sharp black line. As the diaphragm is gradually moved towards the screen the line gets more and more indistinct and finally disappears. Just before this condition is attained the system is in its most sensitive position—a slight increase in brightness causing the line to reappear. Hackett shows that definite quantitative measurements of an increase of brightness may be made—the increase being proportional to the distance he has to move the screen in order to bring it again into adjustment. He finds that compressed cork or wood or unannealed glass will increase the brightness of the screen by about 10 %, and that this is much greater than the increase produced by heating the screen even by a body at 65° C. The minimum change that can be detected by an untrained observer with the diaphragm is 10 %, but a little practice brings this down to 6 %. Without the diaphragm even a 10 % change cannot be detected with certainty. This may explain the failure of so many observers.

Blondlot, too, has given a method which seems suited to quantitative measurement, but which I believe has never been so used. It consists in illuminating a glowing screen with light of its complementary colour and regulating the intensity until the sulphide is just invisible. Any increase or decrease in the phosphorescence makes the screen visible. This would seem to reduce the photometry of any change in the sulphide to a measurement of the change in the intensity of the light required to render it again invisible.

WILL C. BAKER.

## ADDENDUM :

Since the above was written an important contribution to this discussion has come to hand. The *Scientific American Supplement* of December 17th, 1904, contains at length the letter of Prof. R. W. Wood, from which we have quoted above, and on the same page is the reply of Prof. Blondlot.

The French scientist describes a new form of his experiment on the effect of the rays on an electric spark. In this the times of exposure of the photographic plates are automatically recorded on a rotating cylinder.

"The N-rays were produced by a Nernst lamp, between which and the spark, fifty centimeters distant, were intercalated three sheets of aluminium, a sheet of zinc, a spruce board two centimeters thick, a sheet of cardboard, a sheet of paper and, finally, a plano-convex lens of aluminium six millimeters thick at the center."

The photographic plates were exposed to the light of the spark—diffused by a ground glass plate—first, when no rays were being produced, and, second, when the rays were concentrated on the spark-gap. It was shown that plates, as in the first case, could be exposed for fifty-one seconds and yet be far less dense than plates exposed, as in the second case, for fifty seconds.

"In every one of these twelve experiments the half of the plate, during the exposure of which N-rays had acted on the spark, developed more quickly and more strongly than the other half, although it had been exposed for a shorter time. \* \* \* The photographs thus preserve irrefutable evidence of the effect of the N-rays on the electric spark."

The second section of the letter deals with Prof. Wood's account, as follows:

"Attempts made by one person, observing a phosphorescent screen, to detect the moment at which another, without the observer's knowledge, throws the N-rays on the screen, are not necessarily successful.

"Prof. Wood having asked me if such an attempt would succeed, I told him repeatedly '*Nicht sicher, nicht mit Sicherheit.*'"

"We were obliged to converse in German. This was a great inconvenience to me, and probably caused more than one misunderstanding, besides preventing me from explaining many points clearly.

"I had warned Prof. Wood about this, and it was solely to gratify him that I consented to make this attempt with him. As I had foreseen, it was not successful."

Blondlot then explains by an aptly chosen and "well taken" analogy, that as the effect sought is only of the same

order of magnitude as the disturbance caused by uncontrollable external influences, it is only by the observer choosing "calm intervals" of the screen that any sure observations may be made. This, of course, prevents one person from detecting, from observation of the screen, the moment when a second person "turns on" or "shuts off" the rays.

In conclusion he writes :

"I affirm most positively that the phenomena of the N-rays have for me the same certainty that other physical phenomena have. Several of my colleagues and a number of other persons say the same. \* \* \* M. Jean Becquerel, of Paris, has published in the *Comptes Rendus* many notes on the N-rays and N<sup>1</sup>-rays, which notes were presented by his father, the eminent physicist, M. Henri Becquerel. Who will believe that M. Jean Becquerel has, with his father's consent, risked compromising one of the most illustrious names of science by publishing observations on which rest the shadow of a doubt?"

B.

## A SUGGESTION FOR TECHNICAL COLLEGES.

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**T**HE Rhodes scholars with but few exceptions are now in residence at Oxford, and Mr. Rhodes' great experiment, carried out under the management of a Canadian, Dr. Parkin, has begun. It is a curious coincidence that almost on the very day on which Dr. Parkin explained his work to the Royal Colonial Institute, a Canadian schoolmaster, the Headmaster of Lennoxville, P.Q., wrote to the London *Times* a suggestive letter advocating a plan by which English youths intending to settle in Canada might complete their education in Canadian schools. This would indeed be the proper supplement to Mr. Rhodes' scheme. Some plan ought to be devised by which educated youths in England might find it easy to enter the Engineering, Mining and Agricultural Colleges of the Colonies as it is for a qualified Arts student from Canada to take his degree at Oxford under the provisions of the Colonial and Indian Students Statute of that University. It is true that at present Canadian universities accept the Local Examinations of the leading universities in Great Britain as *pro tanto* equivalent to those required for their own matriculation, but this provision is quite insufficient to meet the needs of the case. As Dr. Gow, the well known Headmaster of Westminster School, points out, "these Local Examinations would not suit many schools and a Joint Board certificate or London Matriculation should be treated as equivalents." He adds that it should be possible for a student to enter a Colonial Technical Institute by an examination held in England, whereas it is safe to say that at present not one Englishman in a hundred could be entered, for example, at McGill University without coming to Canada to pass some examination previous to his enrolment. The Ontario Agricultural College does admit students who have passed a University Matriculation or its equivalent, but even in these cases it requires a year's residence, spent in practical work on an Ontario farm, whilst all others seeking admission must pass an examination of which Canadian geography forms a part. Yet such is the demand for this kind of education that many



English boys are now studying at Guelph, some of whom, as Mr. Creelman writes, are doing very well. Mr. W. T. Preston, Canadian Commissioner of Emigration in London, also writes that nearly every week during the summer he has applications from English parents who wish to send their sons to Canada, few of which applications can be complied with. There ought to be some means also by which those students who come up for the Oxford and Cambridge Local Examinations may acquire information as to the conditions on which their certificates will admit them to the Engineering and Agricultural Schools of the Colonies. Why should the Oxford and Cambridge Calendars not give such information? And other English institutions might make similar arrangements.

The situation is much the same in South Africa. The South African School of Mines, which trains most of the engineers for the Kimberley Diamond Mines and many for the Rand, can only be entered by students who have passed the Cape University matriculation, and the writer has the authority of Sir Thomas Fuller, K.C.M.G., Agent-General for the Cape of Good Hope, for saying that that examination cannot be passed unless by the candidate visiting the Cape. The same remark applies to the new Transvaal Institute at Johannesburg and to the Cape Agricultural schools at Elsenburg and Somerset East. Yet those who have passed the Cape matriculation are admitted on the most favourable terms to the English universities, and Trinity College, Dublin, to name no other instance, gives two Scholarships to South African medical students.

I would ask Canada to make it easy for the qualified English Public School boy and for the qualified English undergraduate to enter Canadian technical colleges, and thus, at small expense, provide the proper counterpart to the Rhodes Scholarships. Could not the High Commissioner for the Dominion be empowered to examine English students wishing to enter Canadian Technical Institutes and even if necessary arrange passages at the pupil's expense. He might collect their fees in advance. He might circulate, say every six months, full particulars about fees, courses and conditions of admission to the Canadian Technical Institute amongst the leading educa-

tional institutions of Great Britain. Further, outcourses might be arranged in which certificates could be granted in the subjects actually examined in to those who did not wish to take the full course. If possible 'hostels' should be provided in which the students from England could reside at their own expense under University discipline. Lastly, means might be arranged for allowing qualified students from England to join the summer tours of the Science Schools at their own expense.

The list of certificates required as equivalent to Matriculation might be considerably enlarged. Students wishing to enter with equivalent standing should be allowed to arrange for doing so on some general principle before leaving England, instead of being required to undertake a complicated negotiation in each individual case. Finally, no institution in Canada should be placed on the list of those represented by the High Commissioner unless on the certificates of the Provincial and Dominion Governments, granted on the recommendation of the Provincial Committee for the Rhodes' Scholarships.

If the High Commissioner were instructed to ascertain the views on the whole subject of the several recognized Universities in Great Britain, of the Headmasters' Conference, and of the College of Preceptors, a workable scheme to cover the cases even of those boys who did not hold the certificates of any English examining body, and who now-a-days become "Farm Pupils" or "Bartenders," could be easily evolved. They would in most cases be sufficiently educated to be qualified for admission to the Agricultural Colleges at least for examination for Associate Diplomas or Certificates in Agriculture and Horticulture.

I know that if Canada will make her Technical Institutes easily accessible to English immigrants, many a fine lad will be saved from ruin. The Dominion Government spends large sums in keeping up the Canadian Emigrant's Information Bureau in London, let it spend a small one in benefiting youths of good breeding and of education, and possessed of some capital, who, if properly trained, would do much to develop New Ontario or the great North-West.

H. READE.

Traveller's Club, Pall Mall, London.

**EDITOR'S NOTE.**—Mr. Reade's suggestions deserve every attention. If Lord Strathcona, who has done so much for education, took the matter up, he would probably find it easy enough to arrange. On this side, at any rate, most of the technical colleges might be got to accept the certificates of Headmasters properly attested by the High Commissioner at London. The difficulty about the year's residence on a Canadian farm in the case of the Agricultural College at Guelph is greater. What the new Agricultural College at Winnipeg and that to be established by Sir William Macdonald at St. Anne de Bellevue will do in this matter I do not know. I append a list of the chief Technical Schools in this part of the country with a note of the fees and conditions of admission.

*McGill University, Applied Science*, requires one language and a science or two languages and the equivalent of first year Arts University work in Mathematics for Matriculation. Fees in Arts \$61, and in Science \$175. Total cost per session need not exceed \$250 in Arts and \$375 in Science.

*Kingston School of Mining, Applied Science, Affiliated with Queens' University*.—Matriculation required only in English, Mathematics, Physics and Chemistry. Accepts certificates of equivalent standing. Fees, \$70. Total expense per session need not exceed \$200.

*Toronto University, School of Practical Science, Applied Science*.—Matriculation required only in English, Mathematics, Chemistry and Physics. Accepts certificates of equivalent standing. Fees, \$85. Total expense per session need not exceed \$250.

*Ontario Agricultural College, Agriculture*, accepts for Matriculation equivalent of Ontario Public School Leaving examination, but requires all students to have spent at least one year on a farm in Canada. Fees nominal. Total cost need not exceed \$200.

## BOOK REVIEWS.

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PHYSICAL EXPERIMENTS, by N. R. Carmichael. Published by R. Uglow & Co., Kingston.

**W**ITH the above title Prof. Carmichael has brought out a text-book which, while peculiarly suitable to the physical laboratory work taught at Queen's, will at the same time be of great assistance and suggestiveness in other schools. The graphical methods of presenting results of experiments are followed whenever advantageous, and applied in an effective way in determining centroids, moments of inertia, &c. The method of projecting the shadows of a jet of water or of the funicular polygon on a sheet of paper, and from the diagram drawn therefrom studying the characteristics of uniformly accelerated motion or the fundamental principles of graphical statics, is unique and suggestive. The elaborate diagrams or descriptions of apparatus are given for the simple reason that a few minutes' simple explanation by an instructor with an instrument before the student is very much more effective. Proper attention is paid to the experimental elucidation of the fundamental physical laws as well as to the determinations of the most important and interesting physical constants, such as specific weights, densities of gases, coefficients of restitution and friction,  $g$  by the simple pendulum and by Katers' method, Young's modulus, coefficients of rigidity, temperatures, specific and latent heats,  $J$ , potentials, speeds of sound, indices of refraction, ethereal wave lengths, &c. Any student who goes through the course of instruction mapped out in this text-book will certainly be well prepared for research on his own account. The book is of a convenient size and happily free from verbosity.

D. H. MARSHALL.

## CURRENT EVENTS.

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### THE RESPONSIBILITY OF POLITICAL PARTIES.

**W**E have long been familiar with certain forms of political corruption in Canada, such as the bribery of a low class of voters on election days, the rake-off on contracts obtained by Government supporters, the grants to favoured constituencies, and other examples of the 'spoils system.' Perhaps we can hardly expect to suppress such evils entirely under the party system of government. Even under a very honest government indirect and more or less decent forms of the spoils system are likely to be found. But in Canada we have allowed this system to establish itself in its worst features and so strongly that it has all but become an openly acknowledged method of government. For this undoubtedly the Conservative party in the old days of its power was mainly responsible, and in a special way, perhaps, its old leader, Sir John Macdonald, was responsible. For the leader of a party is the one man who can effectually suppress evils of this kind without incurring enmities powerful enough to ruin his personal prospects with the party. It is becoming more and more apparent that modern democracy means a one man rule of a very stringent kind. Modern parties make public worship of their chief a matter of business, and if he happens to be an able man, he soon undergoes a kind of apotheosis in the eyes of the country which makes him all powerful with his party. The organisation that made him soon comes to stand in awe of him. He is the one man whom the country may fairly hold responsible to the fullest extent for the tone and character of the party. But it is only fair to remember that Sir John was leader of the Dominion at a most trying period when its different races and provinces had to be coaxed and conciliated into a national federation. As he said himself, "Canada was a difficult country to govern." To some extent that difficulty may still exist for a Premier of the Dominion.

It cannot be said since the Liberal party has come into power in the Dominion that it has done anything to disturb

the evil traditions of the system. On the contrary there is too much reason to think that in some ways it has, if not strengthened them, at least confirmed them by continued usage and perhaps by an opener profession of them than one would ever have expected from certain leaders of the old party of Reform. The inevitable result has arrived. The system has bred a race of politicians who have now begun to put into operation methods which are still worse than the old ones and have a still deeper taint of the conscious criminal and law-breaker about them. Bad as the bribery of individuals and constituencies is, it does not directly attack the very principle of representative government, that the people shall determine by its vote who is to govern it. But of late years political corruption in Ontario, a province in which there are no racial or social conditions to give the smallest excuse for it, seems to be taking the form of an organized system for depriving the people of an effective use of the franchise by means of manipulated ballots. This is a particularly dangerous thing, as anyone may see, in a country where the rural constituencies are scantily populated and the majorities for either party often small.

The list of electioneering frauds in Ontario is rather a long one when we consider that we hear only of those which happen to become public in spite of the saw-off system which is a most perfect device for concealing the extent and depth of political corruption in this country from the public eye. West Elgin was the first case where the new operations of the machine became evident. A statement from Mr. McNish, the Liberal member who was unseated, appeared in the press admitting that the Returning Officer had been induced to appoint certain persons to act as Deputy Returning Officers under assumed names, the names assumed being in every case the name of an elector appearing on the voters' list. Some of the persons so appointed were outsiders and some were unknown in the riding. This of course secured the conditions most favourable to the work of the machine. At least two of these officers, Duncan Bole and Martin Cahill, officiated under assumed names at booths where ballots had been stolen and personation of voters had occurred. After a long delay a Commission of County Court Judges was appointed to investigate the alleged irregu-

larities on the part of the Returning Officers and the poll-clerks. The lawyers charged with the prosecution of the enquiry were prominent Liberals. When production of the ballots was ordered, it turned out that they had by an unlucky accident been burned while in the custody of the officials in the Parliament Buildings. As the scope of the Commission had been restricted to the acts of the Election Officers, further enquiry into the affair was blocked. It may be explained that the Provincial ballot papers being numbered on the back can be readily identified in an investigation. They differ from Dominion ballots in this respect. Bole and Cahill went out of the country for a time. No one was punished in connection with the case.

Then there was West Huron, a Dominion bye-election but managed by the well-known agents of the Provincial machine. In this election one hundred and twenty-five more ballots were returned by the deputies than had been sent out to them. At Goderich twenty-two of the ballots counted for the Liberal Candidate were bogus. The operator disappeared. At the Brockville bye-election, also, there were the same phenomena under the same conditions. The accused officers were arrested, were allowed to give bail as usual, and as usual left the country.

Then there was North Waterloo. At the judicial investigation in this case Mr. Justice Meredith declared that one of the Deputy Returning Officers, or some one in connivance with him, did wilfully and fraudulently utter the ballots in his polling sub-division. Another Deputy Returning Officer was 'reported' by the court for the same kind of fraud. The court further declared that the management of the campaign in this election had been 'taken out of local hands by Alexander Smith, representing the Ontario Reform Association,' and that 'outside skilled' assistance had been introduced. That is to say, the machine had taken affairs into its own hands.

The cases being 'reported' by the Judges, the two officers were brought up for trial before the Police Magistrate at Berlin. There was a certainty that fraud had taken place, in the spoiled ballots, in the testimony of many electors as to how they had voted, and in the revelations of an assistant who had at one

time been admitted to the councils of the plotters. The declaration of Judges Meredith and Osler, at the preceding investigation had been explicit as to the existence of fraud. But unhappily it could not apparently be traced to any one. The Crown Attorney who prosecuted said he would not ask for a conviction.

Then there was the Sault St. Marie election. Here the incredible effrontery of the affair showed it was conducted by men who were accustomed to defy the law with impunity. A well known agent of the machine engaged a tug-boat, the famous Minnie M., to carry a number of American 'pluggers' from the American side of the Sault, to personate voters on behalf of the Liberal candidate at two remote stations in the constituency. Attorney-General Gibson, who was at the Sault the night before the election, was informed of the project by a letter read on the public platform and was requested to take steps to prevent its being carried out. It is almost incredible that a Cabinet minister should have failed to perceive what was the only decent or even sensible course for him to take. But his reply shows the depths to which politics in Canada have fallen. Instead of asking for proofs and declaring that he would stop such an expedition at any cost, he said he was not a policeman. He was only a Cabinet minister whose word was all powerful with every Liberal functionary and every official in the district; he was only Attorney-General with the whole legal machinery of the Province at his command. The Minnie M. sailed with her pluggers on board and helped to win a much needed seat for the Government. It reads like a page from the history of a rotten South American Republic.

In this case also there has been the usual unhappy delay in bringing the criminals to justice. At every step some technicality turns up to postpone investigation, and the state of the Government will have been decided at the polls before the details of the affair are laid bare in court. It is the same principle on which the election trials of North Perth, North Norfolk and North Grey were postponed by a hasty summons for the assembling of the House. This is playing 'the game' indeed.

Then there was the attempt to unseat Mr. Sutherland in South Oxford by bribing witnesses to give evidence. In this case



the Judge made the severest comments on the methods employed by Mr. Jackson, the agent for the Liberal party in the protest. After the trial Mr. Jackson ceased the practice of the law and was appointed commissioner for the Dominion at Leeds, England. Sir Richard Cartwright defended the appointment by remarking that Election business was not "conducted on the principles of a boarding school for ladies."

Still more recently the scandals of West Hastings and Frontenac have revealed the type of politicians which the machine is forming. In these places the Liberal candidates had conspired to carry their ridings by means of ballot boxes specially manufactured for the manipulation of ballot papers. But here too it has been impossible to keep hold of the criminals and investigate the ramifications of the plot. One fled at the first rumour of exposure, the other was allowed to give bail and disappeared in the usual way. A police magistrate in the district was implicated in the case. One of the deputy returning officers had come all the way from Chicago to help us at election time. A third person, a minor accessory, who had been arrested in connection with the case, testified that he had been offered money to leave the country, and he might easily have done so. Of all the men reported by the judges in connection with these electioneering frauds only a few guilty of bribery have been fined. The more serious offenders have managed to elude justice.

It is quite evident that these cases are not accidental and sporadic phenomena. They represent the general and inevitable results of a system under which political crimes are lightly regarded and generally escape investigation. It may be possible no doubt to make a plausible apology for the Government in one or two of these cases, but the general impression is irresistible that the arm of the law is deliberately negligent.

In a country like Canada with its small population and its half dozen governments it is easy to understand that a political organization may become much too powerful for the public good, especially when the same party is in power both in the Dominion and the Province. More than one event lately has shown how easy it is for a Government in Canada to decline from a high standard of constitutional procedure. Party

spirit runs higher in Ontario than can be accounted for by any difference of principle or platform between the two parties. The reason of course is that an unduly large percentage of our small population is engaged in what it calls 'practical politics.' Many of our clever young men are trying to climb by political 'pull' instead of by merit and fair service. A premium is laid upon low forms of ability, the capacity for intrigue and the work of the heeler. The poorer sort hope to recommend themselves to the leaders of the district by doing doubtful work for the machine, the better sort do its public work, but almost all alike in every matter that comes before them in civic, educational or industrial affairs are engaged in touting political friends or helping to embarrass those of a different political complexion. They are 'in politics' all the time, to the serious injury of the national life. The new democracy is breeding a race of parasites just as dangerous to the national health as those that once hung about the precincts of royalty ever were, and far more numerous. It is not clear that any change of the party in power will much alter this state of things. Is not the existence of the saw-off system, for example, an equal reproach to both parties?

But one thing at least is clear. If we are to have any decent government in Canada, we must hold the party in power responsible for the fact that political crimes of the kind we have noticed remain practically uninvestigated and unpunished. Our only hope of escaping from the clutch of the machine lies in the growth of a strong and independent public spirit. But we shall never develop that, if we are to allow all other considerations to be lost in the spirit of the partisan, that spirit which spoke so loudly in the declaration made by the editor of the *Globe* at the recent Convention, that he was "prepared to look the ugliest page of the Liberal record in the face and to do all he could to return Mr. Ross with a larger majority than money could buy." That may be all very well for Mr. Macdonald. The editor of the chief party organ may easily persuade himself that it is the right thing to do in the circumstances. But the principle it implies of condoning the crimes committed by the party in office on the mere hypothesis that the other party would be as bad, or worse, if it came into power, is hardly a

safe or a proper one for the country to adopt. It practically absolves the Government from all responsibility to the people. It is almost plenary indulgence. I do not think our party organs are worse than the party organs of other countries. They are a necessary part of our political system. But certainly one of our greatest needs is a strong and independent journalism that will cultivate a sound and temperate spirit of criticism and not be suspected of undue partiality when it praises and of undue malevolence when it blames. Of course it is very difficult, with our small population, to get support for that kind of journalism. As far as I can see, Mr. Flavelle's establishment of a strong and independent newspaper like the *Toronto News* is about one of the best gifts Canada has received in these times.

#### A DEMOCRATIC FALLACY.

It is not about Free Silver ; nor that the enormous growth of the Pension List in the States is a good way of circulating money and promoting the prosperity of the country ; nor that Homer and Shakespeare have nothing to teach an enlightened citizen of Omaha, Neb. ; nor that Bacon spent the shining hours in laborious cryptogramic works. It is more serious than those. It is a recipe for the production of literary geniuses in even greater numbers than we have at present. It has been discovered by Mr. Robert Bridges who writes at length about it in *Collier's Weekly*. It is comparatively simple. Let every one ambitious of achieving success as a writer throw aside all those conventional restraints which are variously known as propriety of diction, idiomatic usage, moral reserve or delicacy, everything in short that implies a standard in tone or treatment, and write as he darn please. That is Mr. Bridges' recipe. He asks us to look at the directness and freedom of speech in the writers of the West and the "Middle West;" could that galaxy of authors, Eugene Field, George Ade, 'Mr. Dooley,' or the creator of 'Old Gorgon' Graham, ever have arisen or flourished under the frigid critical canons of the East? Would the English *Times* or the New York *Evening Post* ever have given one of them a chance to develop his genius? No! Perish the East, then, with its critical standards. Knock out the bung and let the liquor of genius flow freely.

That is his argument exactly enough stated, though I admit I have taken some liberty with his language partly for the sake of brevity and partly for purposes of illustration. Mr. Bridges brings a delightful naivete and freshness to the treatment of this old problem of standard in literary style and work. It is at least as old as Dante in modern literature, but you would never suspect him of knowing that, or that Emerson had said something on the subject, or even that Walt Whitman had made a philosophy of it, or that criticism has already moralized a good deal over the difficulty which is involved in maintaining a standard of style and yet recognizing not only a continual evolutionary movement away from it but also important individual deviations. Carlyle and Browning, I think, were quite as successful, to say the least, as George Ade or Mr. Dooley in establishing their highly individualistic style in literature, both as regards language and thought. Walt Whitman too had his achievements in that life, though on the whole his experiments are of a doubtful character. Even Emerson in his own way knocks out the bung and pays but little attention to certain canons of composition unquestioned before his time. It is not really the question of individualism in the form or art of presenting things that is important; it is the question of what that individualism represents. Is its freedom from tradition and authority the kind of freedom which is natural to a noble mind and a high intellect, or is it of the kind which is natural to a vulgar soul and an untrained, or imperfectly trained mind! It depends considerably on that point whether it is wise to admire and encourage it, or not. Mr. Bridges' simple recipe solves the problem by the easy process of leaving out its most important aspect.

It is easy to see where Mr. Bridges' discovery would lead us. Our new geniuses, instead of aiming high as regards the art of presentation, instead of seeking high forms of individuality in their style and manner, would sink down into ever coarser forms of dialect and slang and that kind of jocularity which reflects the mean side of life as it is seen by a vulgar mind. We shall never have the higher forms of individuality if we put a premium on the lower. Here, for example, is a specimen of the style which the admiration and patronage of the great

“Middle West” have developed even in a very clever writer, a writer capable of better things :

How many Flies are there in the Molasses ? That is Hard to Answer. These flies will look Proud spread out on Sister Lucy's buckwheat cakes in the Morning. But Lucy will not care. She will pick them out of the Molasses with her Taper Fingers, and Wipe them on the Bottom of her Chair. But if her Beau were there, she would Yell and say, how Horrid. The strength of a Woman's Stomach depends largely on the surroundings.

That is from Eugene Field and a fair enough specimen of the style and humour which the “Middle West” is developing to set beside the humour of Moliere, of Thackeray and of Daudet. One can see, of course, that the satirical humour of that sketch might have taken a higher and finer form ; but this you see, is the form which the taste of the “Middle West” demands. And they wonder why the great republic is not developing a great art or literature. I am almost sure it is not, as Mr. Bridges implies, because the critical standard is too rigid. But all the same I admit that I feel the fascination of Mr. Dooley. There is sense in his humour and his style has something of the value of a national dialect very skilfully used. But I think the comic papers of New York or even London would have been as ready to welcome his contributions as the great Middle West itself.

#### SIR WILLIAM MACDONALD AND AGRICULTURAL EDUCATION.

Every year now has a new instance of Sir W. C. Macdonald's liberality and public spirit to record. The munificent support he has given to technological education in McGill University, to manual training and nature study in the schools, the establishment of the Macdonald Institute for Domestic Science at Guelph, and the plan for the erection of an Agricultural College near Montreal on a scale, as Prof. Robertson explains it, worthy of the great agricultural future before Canada, give him a high place amongst the benefactors of his country. His name will remain honourably identified in the minds of his countrymen with educational work in Canada when that of many a politician now occupying much of the public attention will be mentioned only to illustrate the curious psychological features of the political corruption of the age.

Nothing is so likely to repay the philanthropist and patriot as educational benefactions of the right kind. Nothing is so enduring in its results, and in no other sphere are the results more exactly proportioned to the merits and defects of the system employed. John Knox's Parish School system trained Scotchmen for generations in sound traditions of industry, prudence, reverence and intellectual discipline, which gave character and backbone to the nation and made the common Scot an intellectual man and a reader of serious literature long before the common Englishman was so. It was defective in certain respects, in aesthetic elements, and in the kind of training and traditions which then formed a man for high public life; it could not teach effectively either elegance of scholarship or urbanity of manners as they were taught in the great public schools, which were the backbone of the English system. To this day the typical Scot inherits some of its defects, as the typical Englishman still shows both the strength and the weakness of the high but somewhat limited and conventional traditions of the system under which he was trained.

If you need an illustration of the subtle way in which the various elements in a national system of education work upon a nation, you could not get better examples than those. The consideration of them from this point of view ought to make our modern educationists cautious. And it is worth noticing that neither England nor Germany, though each is making great efforts to provide sufficient technical and commercial education for its youth, is in the least inclined to displace or impair its old educational system for that end. Both are wise enough to see that the two ends are distinct.\*

Of course the old system is no longer commensurate with all the needs of our age. It does its own proper work well, but it cannot do work which it was never intended to do. It was established in days when industrial and technical training were left to individual enterprise and the natural operation of local habits and influences. The son then followed as a rule his

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\*I will help myself here with the authority of Principal Peterson, of McGill University. In his recent pamphlet on "National Education" he says: "Germany recognizes the traditional curriculum in Classics, Mathematics and Modern Languages as the best means of training for all, whether they are going to the University or not."

father's handicraft or succeeded to his father's farm, and was early trained in all the traditional methods of his work. But for many reasons, chiefly connected with the development of scientific methods in industry, with democratic changes in our social condition and with the keen commercial competition into which the nations have entered with each other, this traditional system has become inadequate and must be replaced or at any rate supported by something more scientific.

It is the problem of Agricultural Education which more particularly, though by no means exclusively, is occupying Sir William's attention. And the problem there is of a very peculiar kind. Every one is aware that it is difficult to get Canadian youth to appreciate the opportunities which agricultural life affords. Few even of those who are born on the farm want to stay there. They prefer city life with its social advantages and refinements, with its greater variety of opportunities. They see all that is wealthy and elegant and attractive and intellectual and scientific concentrated in the cities. There is not yet in Canada, as there is in rural England, a powerfully organized and elegant social life maintained by rural magnates, with its pleasant round of intellectual and social activities, quite on a level with those of the city and in some respects superior to them. The farmer of the Lothians and Aberdeenshire was a well-bred gentleman and very probably something of a scholar, certainly an educated man who could well distinguish between what was true and what was false in the world around him. Both in social standing and in circumstances he was on a level with the better class of professional men. He even looked with some contempt on the life of the average city man, regarding it as in every way inferior to his own. But in Canada it is precisely the reverse. The youth of Canada and of this continent generally regard the farmer as a backward specimen of humanity, a "hayseed" is their contemptuous term for him, and have a strong distaste for the environment of farm life. Accordingly too many of our young men leave their rural homes for the city to become doctors, or insurance agents, or clerks, or anything that will give them the social advantages of city life and a better chance of making money than work on the farm seems to offer.

How are you to change this tendency which is so very natural in a democratic age and country? There are some who would seek a remedy in keeping the standard of education low and even limiting its facilities. "We have too much education," they say, "it is unfitting our young men for labour." But this eagerness of the youth for social elevation and development is perfectly legitimate and obviously a necessary accompaniment of democratic progress. It would be no true remedy to keep the standard of education so low either in kind or in degree that social and intellectual ambitions would cease to operate on the individual. The true remedy lies in the opposite direction, that of educating him to make more out of the agricultural life which he at present despises, more in every sense, intellectually and socially as well as practically.

Nothing but an economic change can alter economic conditions. Philanthropy and ethical teaching which are not based on economic lines of work will effect no general change in the habits and tendencies of men. Make agriculture profitable by teaching the use of scientific methods, give it a scientific interest which will put its labours on a level with those of the civil engineer and the doctor, make the farmer the same elevated type of man as they are, and you will have done much to make farming as attractive to young men as other pursuits are at present. And as the growth of competition tends to make city life ever harder, it is possible the tendency to move from the country to the city may change sooner than we expect in a country so adapted for agriculture as Canada is.

It seems to be some hope of this kind which has inspired Sir William Macdonald's various and extensive benefactions in aid of manual and agricultural education. It is a great work and Sir William has been fortunate enough to secure in Prof. Robertson an associate who has all the practical energy and high faculty of organization required to carry out such an extensive scheme. And Prof. Robertson has not only these qualities, he has also all the enthusiasm of a reformer who comes before the country with a mission, and the mission is to preach the value of practical and 'constructive' work in the education of youth.

But, like most reformers, Prof. Robertson is apt to take



extreme views. Is it really necessary in order to promote the cause of agricultural training that he should dispute the place which the more general and literary elements of education have in our present system, and attack everything from grammar, which has a much higher value as an elementary training in the psychological and philosophical analysis of speech than some educationists understand, to the study of arithmetic and literature. No man of sense will underrate the culture value of nature studies and practical training. They put the student in intelligent contact with the great industrial and scientific activity of our time as literary education alone cannot do. They train him to a calmer and more logical if more limited exercise of the reasoning faculty. Perhaps they even teach more simply and obviously, though less profoundly, the lesson that result is exactly proportioned to effort and methods. But these lessons, great and essential as they are, are neither the whole nor the highest lessons of life. There is a social, ethical and intellectual side to our civilization which it requires quite another kind of training to appreciate, and it involves political and social problems with which a good type of citizen must be educated to deal. It is just as important for the national welfare that he should be properly educated on that side as on the other. Otherwise we shall continue to see what we see on this continent to-day, the mere fever of material life, the growing effrontery of the corrupt politician and the apathy of the public in connection with it, the steady depreciation of standards in literature and art, and the open contempt of the healthy pleasures and occupations which rural life affords. In particular, as far as the ideal of agricultural life is concerned, surely no man is more dependent on the development of the literary instinct for his higher life than the man who is withdrawn from the social life of the city. It is mainly by training his literary faculty and awakening what we may call broadly his literary sense of things that he can be kept in intelligent contact with the complex intellectual life of our age and understand the variety of problems it presents to every citizen of a democracy. A system of education which neglects this literary side, however excellent otherwise, must have the effect of slowly but surely lowering the standard of citizenship. It has no really effective means of creating a sound public or

national tradition. It lacks precisely the element which is of so much value in the older system.

Notwithstanding all his great practical gifts and his specific excellence as an organizer of practical education, Prof. Robertson's general theory of education does not seem to me to be quite safe or sound as a whole. As far as I have been able to follow his utterances in the daily press and in personal reports which have reached me, he seems to be still under the influence of fallacies, some of which belong to the old theories of the Utilitarian school of Bain and Spencer about education, while others represent the new pedagogical tendency to set up "concrete" methods and the object-lesson in opposition to literary and abstract methods in intellectual training. He contrasts, for example, the study of books, or literary study in general, as a study of "words" with nature study and constructive work as a study of "things." He seems to shut his eyes to the fact that an idea or an expression of opinion is a "thing," that the public speeches of Abraham Lincoln or President Roosevelt are "things," that a historical narrative, a character sketch, a written report of a public meeting, an account of the condition of the Phillippines, a dogma, a law, an editorial, are all "things" which it may be very important for one both as a private individual and a citizen to be able to judge intelligently. And it is mainly by a form of literary study that you learn to judge intelligently about them, and by far the larger part of your knowledge of the age and its civilisation, of its activities and needs, must be acquired in this way. What you actually see and do in your own person is, it is true, the best part of your experience, but the best use you can make of that is to use it as a means of testing and verifying the much larger and subtler form of experience that reaches you more indirectly in a literary form. How can a man be an effective citizen of our great modern states without a proper literary education? He has to decide, by his vote, a hundred problems, social and political, most of the factors in which he knows only through literature. Even the effort to find proper expression for your thoughts on anything is by no means merely a study of words. It is or should be mainly an effort to understand the "thing" better and the impression it makes on your

mind. That is the really important matter in the study of style or expression. The study of the words alone is only an elementary form of the study, something like learning the mechanism of a machine before you begin to use it.

In the same way Prof. Robertson seems to oppose manual or practical training as the "training of faculty" to literary or geometrical training as simply the training of the "intelligence." This is by no means necessarily the case. To train a student to express his ideas in logical sequence, in the proper perspective of their importance, and with the clearness and force which make their value felt by the hearer or reader, is to train a faculty, the faculty required by teachers, publicists, editors and many others. To train a man to understand rightly the different value of speech as it is used by Carlyle or Matthew Arnold, and as it is used by some shallow theosophist or itinerant 'spellbinder' of the day, is a very useful training of the critical faculty and is as much needed to help a man to see and do his duty as a citizen in this complex life of ours as a faculty for constructive work is. And all these lines of study have elementary forms which are very useful even for the common or average man, if he is to be an intelligent citizen of a democracy.

Professor Robertson seems to confuse these and other kinds of literary and general education with the most debased forms which they may assume in the hands of incapable teachers. He characterizes them all contemptuously as a memorizing of "names, dates, rules and forms." He does not seem to understand the high practical nature of modern literary study, but confounds it with mere "scholarship." He even flouts the three R's, as if he did not recognize that arithmetic and grammar are an elementary training in quantitative analysis of things and philosophical analysis of thought, very valuable for those who are to receive no higher training in this direction. I think Prof. Robertson goes much too far in the exclusive preference he gives to 'concrete' or 'constructive' methods as compared with abstract ones in the education of the young. It is not always the best method to present the full complex forms of nature and life to the young pupil as material for study. A certain abstraction of material, as we see in

geometry, is often the best way of training the mind to apprehend general principles.

These and some other principles, either doubtful in themselves or used in a too exclusive way, underlie Prof. Robertson's general theory of education. I have expressed my opinion about them all the more plainly that I do not think they are necessarily included in his real aim, which is to promote the scientific and practical study of agriculture. On the contrary, I think it would serve his real aim well and contribute to the elevation of agricultural pursuits if he were to make a fair amount of literary education an essential part of his higher courses in agricultural science. I have so high a respect for Prof. Robertson in his own sphere as an organizer of practical or technical education that I am very sorry to see him identifying a cause which is so good with theories which are so doubtful.

JAMES CAPPON.

#### THE KING AS A STATESMAN.

King Edward, during his short tenure of the British Throne, has certainly proved his capacity to rule. One knows not whether most to admire his ability as a statesman, or the tact and wisdom with which he exercises his power. He has solved, apparently, one of the most difficult of problems; how a hereditary ruler, in a democratic country with representative institutions, can actually play a vital part in the politics of the country, and yet not embarrass his ministers or excite party spirit. He has found that there is still one important field in which the monarch, provided he has the ability, can discharge the very highest services to the state without necessarily infringing on the domain of the constitutional statesman, and that is in connection with the foreign relations of the country. This is the political field which usually puts the severest strain upon democracies. Not that democracies are incapable of providing statesmen able to deal with international questions, but that on such subjects the majority of the people are profoundly ignorant and prejudiced. Hence, where they attempt to make their wishes felt in an authoritative way, they are almost certain to be wrong and to provide most embarrassing situations for

foreign ministers. The most successful ministers of foreign affairs are those who, like Lord Salisbury and Lord Lansdowne in Britain, M. Delcassé in France, or Mr. Hay at Washington keep their own counsel and attend diligently to their duties, happy to escape the notice of the general public. Lord Lansdowne is a man of the very highest character and of rare ability, but absolutely indifferent to that personal pushfulness and tendency to make one's political toilet in public, which is at once the basis of demagogic power and of futility in all serious matters. In the hands of the King and Lord Lansdowne Britain's foreign relations are most fortunately situated. In general it is true that the present British government has been going from bad to worse at home, raising double-faced issues and expectations impossible of fulfillment, throughout the Empire, and, quite generally, preparing for dissolution and the bequeathing to its successor of a most embarrassing legacy. But the Foreign Office, in fortunate neglect by the populace and their more aggressive favourites among the politicians, under the wise management of the King and the Minister, has rapidly raised Britain from the unfortunate position which she occupied at the close of the South African war, to as high a rank as she ever occupied in the councils of Europe. Faith in her honesty of purpose, assurance of her substantial devotion to justice among the nations and of the exercise of her power, held aloof from entangling alliances, to that end alone, have gradually taken the place of the suspicion that she was once more embarking upon a career of aggression.

In the recent trying incident with Russia, so full of dangerous possibilities, we have an instance of the very highest statesmanship exercised with a self-sacrificing courage which calmly withstood popular clamour and jingo charges of cowardice and pusillanimity encouraged by important public organs. In short, we have the putting of the ultimate good of the country above all immediate personal or party interests. Such a supremely patriotic service did the King and Lord Lansdowne render their country in the midst of a crisis which, but for skilful handling, would have precipitated a senseless but extremely popular war, which it would have been the rankest treason to hint was anything but inevitable.

As the immediate result of war, we should have had the Russian fleet sent to the bottom in short order, amid frantic rejoicings, mafekings and unbridled hooliganism. Its crews and officers would have gone down to death in quite heroic fashion, their honour for ever vindicated in the eyes of the world, and their memory venerated in Russia, there to become the spiritual seed-bed of a great future revenge such as can only be stored up with patient usury by the fanaticism of a semi-civilized people. Under the shadow of that thunder-cloud, ever growing burdens of taxation would be laid upon millions of people, many of them in the pinch of poverty. With other crying needs neglected, the proceeds would be wasted in endless preparations for the day of reckoning. From all this, and possibly much more, the world has, for the present at least, been spared, and every triumph of peace fosters peace as surely as war begets war. Meanwhile the Russian officers, under sentence of the court of poetic justice, live disgraced in the eyes of the world and cannot possibly be heroes at home. What other tribulations are in store for them remain to be seen.

Britain, on the other hand, by a course of magnanimous forbearance, where the advantage was all hers, has given the most undoubted proof of her desire for peace, has established a noble precedent, and has greatly heightened her moral weight in the councils of the nations. As the wisdom of her course is fully realized the patriotic statesmanship of King and Minister will meet with ample recognition.

#### POLITICAL CORRUPTION.

As usual, the recent revelations of political corruption have led to many exemplary outbursts of denunciation, as generous in measure as they are vigorous in quality. But if these thunder-bolts of righteous indignation are not to pass through the usual stages of the degradation of energy, until they end in simply augmenting that store of heat without light which is the support of party warfare, it will be necessary to look the whole situation more squarely in the face. This is no question merely of party politics. The party system is but an expression of the general life of the people. It is a common practice to play fast and loose with serious national defects, which find in political

corruption only one among many channels of outlet. Thus as a nation we are constantly complimenting ourselves, in the most lavish terms, on our highmindedness, our justice, and our political purity ; while, as divided into opposing political parties, we denounce each other, in equally unmeasured language, as so corrupt and unprincipled as to be only partially restrained from the most flagrant crimes by the fear of the party opposite. These respective pictures which we paint of ourselves are, of course, highly idealized ; but they are idealized for practical purposes. They are conventional forms of fiction which readily impose upon the multitude, and, in time, upon their authors, and which as a rule spare us the more arduous pursuit of truth.

The public conscience is very much affected by conventions and rules of procedure, Commercial, social, or political situations, which for years have been matters of private knowledge and discussion, when publicly exposed call for expressions of amazement and horror. Accusations, which if brought against a private citizen would blast his reputation and ruin his career, when charged in a public way against those who are the custodians of the country's honour and the directors of its affairs, excite at most a passing commotion. Incidentally it may be noted as a somewhat discouraging feature, that most of the spectacular revelations which have lately been made are indicative, not of the more radical and dangerous forms of political corruption having a wide range, but of crude and stupid sporadic devices, indicating, indeed, the perfectly unscrupulous anxiety to defeat an opponent, which is characteristic of most dishonest political tactics, but not otherwise revealing forms of corruption from which the public have much to fear.

That much of the horror expressed in connection with such revelations is from the lips only, is evident from the tone of the criticism itself, and from the use made of it. These evils are not regarded as indicative of grave national defects, but only as evidence of wholesale corruption in the party with which the revelations happen to be associated. Now it surely goes without saying that the action of any integral element in a party must affect the character of the whole. This does not necessarily imply that the party as a whole is corrupt, or that its

leaders are corrupt. But evidences of corruption within a party must affect the reputation and responsibility of the party as a whole. A party, like a nation, is a spontaneous unity, and the fact that the members have only a limited control over each other does not alter the other fact that each unity shares alike in the honour and disgrace of its members. There would be an end of all political responsibility if the heads of the respective parties simply reflected their own qualities upon them, but were not to suffer for the evil deeds of their followers, whether definitely organized, or acting individually. The party must stand or fall as a whole. The corrupt element must be made to realize that it cannot take shelter behind respectable leadership, but that it brings discredit and possible defeat, not only upon itself, but upon the leaders of the party and all connected with it, past and present. The leaders, on the other hand, must constantly realize that in guarding the honour and traditions of a party they must do their utmost to keep the organization free from the selfish, sordid, and unscrupulous elements which will naturally seek to attach themselves to whatever is powerful and of good record, the better to shelter themselves and their traitorous activities. For the only disloyal or traitorous actions to be feared in modern times are those connected with political corruption.

But though the ultimate basis of political corruption is to be found in the character of the people who compose the nation, and is not therefore to be got rid of by simply changing parties, however frequently the process is repeated, yet there are special features in practical politics which tend to foster, if not to originate corruption. Political corruption is in many respects more widespread and brazen than private, or business corruption. One of the chief causes of this is undoubtedly the reckless, and indeed more or less conventional habit of sweeping accusation and miscellaneous abuse, associated with the traditions of party warfare. How little of the party discussion or the party tactics which furnish the intellectual and moral atmosphere of general elections, is characterized by genuine criticism or honest endeavour to shed light, establish truth, or promote true national interests? As has been said, the party as a whole cannot escape the record of its members. But it is one thing to



hold each party responsible for what goes on within it, and quite another to lay the misdeeds of special individuals belonging to the party at the door of the most honorable and respectable members in it, simply because to do so will make a more effective political campaign. It is the indiscriminate blackening of all characters that leads to that confusion and ultimate obliteration of standards of personal honor and rectitude, which, on the one hand render, by comparison, legitimate criticism tame and ineffectual; and, on the other, take away from the evil elements in both parties all effective restraint upon corrupt practices. It encourages the conviction that amid the miscellaneous slang—whanging and reckless hurling of accusations, characteristic of good party fighting, actual corruption in politics is not really the serious matter it would be in business or professional life. On the contrary it comes to be considered as only part of the game,—a disagreeable part for some, perhaps, but only to be avoided by keeping out of the fight altogether. Risks of failure, being more or less mutual, are to be compounded for by various processes of sawing-off, or otherwise equalizing results. Thus in the end the only real evils associated with political corruption are to be classed, not as crimes, but as misfortunes;—the misfortune chiefly of being found out, in a strictly judicial sense. Such an obliteration of ordinary distinctions has been the result of lax social standards, further debased by prevailing methods of party warfare. Yet bad as they are in many quarters, things political are not so bad as they used to be. But, in working towards the ideal of abolishing corruption, we must recognize, in the first place, that it is a national and not merely a party defect, and, in the second place, so far as it is a party defect, that it is largely due to false standards of party morality; and that intellectual dishonesty in argument is the most fruitful source of practical dishonesty in action.

A. SHORTT.



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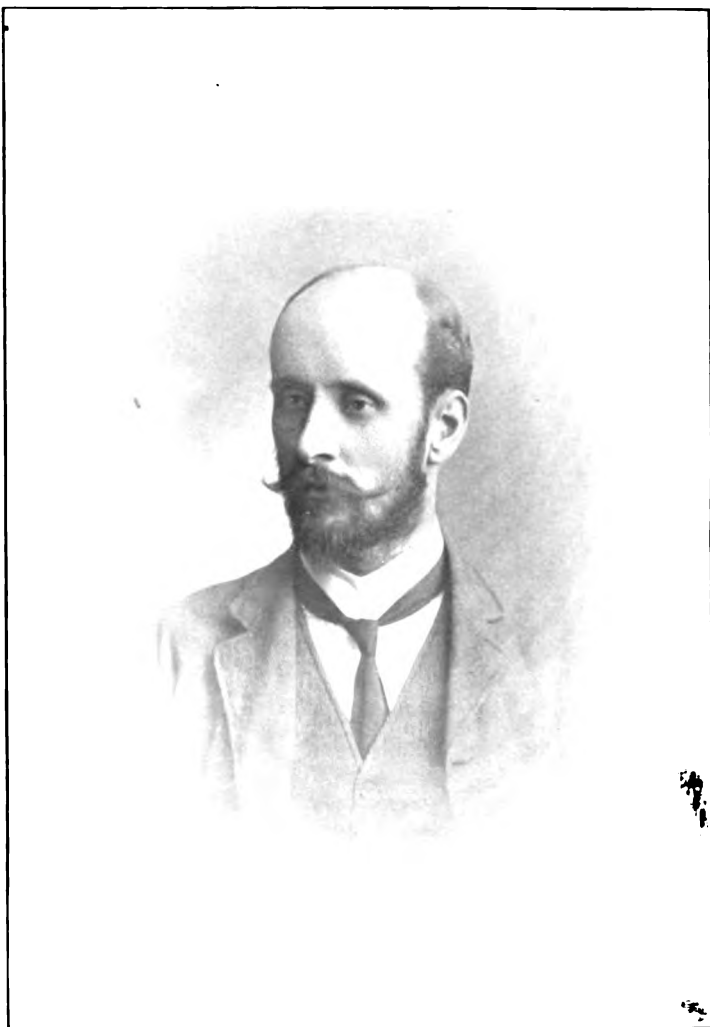
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W. E. P. STOCKLEY



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## MOORE'S SATIRICAL VERSE.\*

1779-1852.

**S**HELLEY did not think himself Moore's equal as a poet ; and when Moore placed himself below Shelley, "the world admired his generous modesty, but smiled at the exaggeration." 'Christopher North', indeed, had been saying—and Moore, on first meeting John Wilson, thought him "an odd person but amusing"—that "of all the song-writers that

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\*Moore's chief works :—

- 1800—Translation of "Anacreon."
- 1801—Poems by the late Thomas Little.
- 1806—Odes and Epistles [from America, in 1808-4].
- 1808-1884—Irish Melodies.
- 1808—Corruption and Intolerance ; two verse satires.
- 1809—The Sceptic, a philosophical satire ; in verse.
- 1811—M.P., or the Blue Stocking ; a comic opera in three acts, performed at the Lyceum.
- 1813—The Twopenny Postbag, or Intercepted Letters ; in verse.
- By Thomas Brown the Younger.
- 1818-1827—National Airs.
- 1816-1824—Sacred Songs.
- 1817—Lalla Rookh [The 'Tulip Cheek '].
- 1818—The Fudge Family in Paris ; letters in verse.
- 1819—Tom Crib's Memorial to Congress [of Vienna] ; in verse.
- 1820—The Journal of a Member of the Pocomourante Society.
- 1823—Rhymes on the Road.
- 1823—Loves of the Angels [Genesis vi. 2].
- 1823—Fables for the Holy Alliance ; in verse.
- 1824—Memoirs of Captain Rock.
- 1825—Life of Sheridan.
- 1827—The Epicurean ; in prose.
- 1828—Odes on Cash, Corn, Catholics.
- 1830—Life of Byron.
- 1831—Life of Lord Edward Fitzgerald.
- 1833—Travels of an Irish Gentleman in Search of a Religion.
- 1835—The Fudge Family in England.
- 1839—Alciphron (an "Egyptian poem" added ;—being original fragmentary form of the *Epicurean*, which was the name at first intended for the poem).
- 1835-1846—History of Ireland.

ever warbled the best was Thomas Moore."\* But that voice grew faint, or men forgot the echoes of 'When he who adores thee', of 'Silent, Oh Moyle, be the roar of thy water', and even of 'At the mid hour of night when stars are shining, I fly.' Moore had his partial eclipse, as have had many greater than he.† He shines now, from his best poems, with his own faint silvery light; and the *Irish Melodies* need no foil from the gold tinsel of his Paradise: their words may live a life graceful and beautiful, even if unwedded to those immortal airs, "the spirits of the Waterford women made music of," as dreamed Edward Fitzgerald (whose people dwelt among them) when over him came the mystery of their blue eyes and black hair, and their long eyelashes. Nor will the Gaelic League kill Moore, even though it were to banish his soul to the England he chose for his dwelling place on earth, "that other country to which we all belong," the "old England once more" of his joyous letter when returning there from America; and even though (as a Gaelic professor declares) harps and shamrocks,‡ round towers, wolf-dogs, green§ flags, sunbursts and blarney stones be all shams, and expressions of a sham Irish-

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\*He adds,—in phrases to make matter for fits and fightings without end, in one, anyway, of the islands concerned—"Who shall say that if Moore had been born and bred a peasant, as Burns was, and if Ireland had been such a land of knowledge and virtue" [a Scottish friend glosses this as 'vigour'] "and religion as Scotland is—and surely without offence we may say that it never was, and never will be—though we love the Green Isle well—that with his fine fancy, warm heart, and exquisite sensibilities, he might not have been as natural a lyrist as Burns; while, take him as he is, who can deny that in richness, in variety, in grace, and in the power of wit, he is superior to the ploughman"?

†A Mr. E. J. Mathew has performed the feat of writing a 'History of English Literature' (Macmillan, 1901,) without mentioning Moore; except that he visited, in prison, Leigh Hunt; who, by the way, has six of these disproportioned pages; while Scott has three, and Keats one page and a half.

‡"In all our Anglo-Irish literature, both poetry and prose, we are accustomed to hear the shamrock spoken of as a national emblem. In Irish literature, ancient or modern, I have not seen a single trace of any such significance attaching to the shamrock. Those words of Moore, 'Oh the shamrock, the green, immortal shamrock', would, even at the present moment, have no more meaning for a genuine Irish speaker than if Moore had said, 'Oh the sorrel, the green, immortal sorrel', or 'Oh the cabbage, the green, immortal cabbage'."

§Perhaps it is not generally known that green was never the national colour of Ireland before the days of her penal distress. Blue and yellow were the probable colours of the old Irish flags—colours preserved in the Irish portion of the present Royal Standard.

man, unknown to Gaels immediate or remote ; and though Moore be the guilty creator of the "lachrymose, slobbering, and dishevelled Erin, weeping to her harp," and be the inventor who set going the myth of the "smiles and tears." Though, by the way, was he such an inventor ? The irritated professor may be corrected by the poet-critic Fitzgerald, already named, who in gentle mood thought that his ancestors' country and people and music were all homogeneous, "mournful and humorous." However, Moore's native Dublin is meditating just now a worthier statue to him than that dull heavy-robed thing, that pedant monster, lecturing you with finger aloft, outside his Collegium Sanctae et Individuae Trinitatis juxta Dublin, whose Fellows he once declared to be, as a body, "a cursed corporation of boobies" for neglecting to subscribe to his first publication, the translation of—the Odes of Anacreon\* so-called. For, whatever he was, Moore was himself ; neither dull, heavy, nor pedantic. He was small—no offence in that—since "men of great action, I suspect, including the most heroical soldiers, have been for the most part of small stature"; so maintains Leigh Hunt ; recalling, too, what there was in Moore's aspect of "handsome and poetical." "Moore's forehead was bony and full of character, with 'bumps' of wit,

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\*The sprightly and scholarly translator allows, however, that he "experienced much hospitable attention from Doctor Kearney, one of the Senior Fellows"—Provost in 1799—"a man of most amiable character as well as of refined scholarship"; and "I submitted to his perusal the manuscript of my translation as far as it had then proceeded, and requested his advice respecting my intention of laying it before the Board"—[the ruling body, consisting of the Provost and six Senior Fellows.] "On this latter point his opinion was such as, with a little more thought, I might have anticipated, namely, that he did not see how the Board of the University could lend their sanction, by any public reward, to writings of so convivial and amatory a nature as were almost all those of Anacreon. He very good-naturedly, however, lauded my translation, and advised me to complete and publish it.

One may add, as to his college, that Moore, when in Ireland in August, 1835, was entertained privately by the Provost, Dr. Bartholomew Lloyd ; "his civility to me since I came having been most marked and liberal. . . . On referring to his speech on the reconcilability of geology with the Mosaic account of the Creation, which I now praised to him, he said he was glad it met with my approbation ; that he knew I was a theologian myself ; and though we differed very much on some points, it gave him pleasure to be praised by me. This all very good-tempered and handsome of him."

And then Moore, the next evening, was at "the Great Lion Feast of to-day"—August 15—"the dinner given in the College Hall by the Provost and Fellows of the University *etc* ; . . . my ticket being for the Lord Lieutenant's table, where the select were stationed."

large and radiant enough to transport a phrenologist. Sterne had such another. His eyes were as dark and fine as you would wish to see under a set of vine leaves; his mouth generous and good-humoured, with dimples; and his manner as bright as his talk, full of the wish to please and to be pleased." If he was a lecturer, he was often a witty one,

"who in all names can tickle the town,  
Anacreon, Tom Little, Tom Moore, or Tom Brown."

And this is here to be shown in his satires, social and political—which I do not happen to have found people now know much about. Though Lord John Russell's\* fifty year old preface does indeed judge: "The political squibs are excellent, from their ease and playfulness; they are too well known to require further notice." And the modern popular compilation, 'The Age of Wordsworth' (1899), still gives "Moore a secure place," not only "among the song-writers," but "among the satirists of his time."

The times were out of joint for Thomas Moore: personally he had cause to spite the world. "Born of Catholic parents, I had come into the world with the slave's yoke around my neck: and it was all in vain that the fond ambition of a mother looked forward to the Bar as opening a career that might lead her son to affluence and honour. Against the young Papist all such avenues of distinction were closed; and even the University, the professed source of public education, was to him 'a fountain sealed.'

"Yes—I am of that outcast few,  
To Iran and to vengeance true,  
Who curse the hour your Arabs came  
To desolate our shrines of flame,  
And swear, before God's burning eye,  
To break our country's chains or die!  
.....

Yes, Emir, he who scaled that tower,—  
And had he reached thy slumbering breast  
Had taught thee, in a Gheber's power  
How safe even tyrant heads may rest—  
Is one of many, brave as he,  
Who loathe thy haughty race and thee:  
Who, though they know the strife is vain,

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\*He published Moore's *Memoirs, Letters and Diary* in eight volumes, 1853-56.

Who, though they know the riven chain,  
 Snaps but to enter in the heart  
 Of him who rends its links apart,  
 Yet dare the issue—blest to be,  
 Even for one bleeding moment free,  
 And die in pangs of liberty !  
 .....

Rebellion ! foul, dishonouring word,  
 Whose wrongful blight so oft has stain'd  
 The holiest cause that tongue or sword  
 Of mortal ever lost or gain'd—  
 How many a spirit, born to bless,  
 Hath sunk beneath that withering name,  
 Whom but a day's, an hour's success,  
 Had wafted to eternal fame."

For, as of old was said :—

Treason doth never prosper. What's the reason ?

That if it prosper, none dare call it treason.

"And though but few—though fast the wave  
 Of life is ebbing from our veins.....

This spot shall be the sacred grave  
 Of the last few who, vainly brave,  
 Die for the land they cannot save !"

A note to this Fire-Worshipper from *Lalla Rookh* adds :  
 'Voltaire tells us that, in his tragedy, "Les Guèbres," he  
 was generally supposed to have alluded to the Jansenists ;  
 and I should not be surprised if this story of the Fire-worship-  
 pers were found capable of a similar doubleness of application.'  
 Lord John Russell is sure "that the Ghebers were no doubt  
 associated in the mind of Moore with the religion and the  
 country most dear to his heart."

When in 1793 Catholics were allowed to go to Trinity  
 College, they were excluded from the 'foundation' and could  
 not get scholarships. So, though Moore, in 1794, entered for  
 scholarship, "as far as the result of the examination went,  
 successfully" ; yet, of "course the mere barren credit was all I  
 got for my pains..... How welcome and useful would have  
 been the sixty pounds a year to the son of a struggling trades-  
 man, struggling hard to educate his children—I need hardly  
 point out ; nor can one wonder that the recollection of such  
 laws, and of their bigoted, though in some cases conscientious,  
 supporters, should live bitterly in the minds and hearts of all

who have, at any time, been made their victims." Wilberforce's remark about the Catholics Moore thought good, that they were "like persons discharged from prison, but still wearing the prison dress." And though Leigh Hunt says of Moore, anyway, that "he appeared to me to be the last man in the world to cut his country, even for the sake of high life," and though he refused invitations of princes, not to say of kings, yet had not the writer of 1818 a certain prison tone



THOMAS MOORE.

(though he himself had already emancipated himself in England) when he "called upon Shee the painter, in order to show Scully the pleasant spectacle of an Irishman and a Catholic prospering among the grandees of England, without the surrender of one Irish or manly principle"? Notwithstanding, to the Englishman in his pride, he does cry out from Ireland :

"Boast on, my friend, while in this humbled isle,  
 Where honour mourns, and freedom fears to smile,  
 Where the bright light of England's fame is known  
 But by the baleful shadow she has thrown  
 On all our fate—where doom'd to wrongs and slights,  
 We hear you talk of Britain's glorious rights ;  
 As weeping slaves, that under hatches lie,  
 Hear those on deck extol the sun and sky !  
 Boast on, while wandering through my native haunts,  
 I coldly listen to thy patriot vaunts,  
 And feel, though close our wedded countries twine,  
 More sorrow for my own than pride for thine."

He never hides from himself what penal laws meant ; being  
 "an Irishman . . . . . to whose country the Revolution [of 1688]  
 brought nothing but injury and insult, and who recollects [that]  
 the book of Molyneux was burned by order of William's Whig  
 Parliament for daring to extend to unfortunate Ireland those  
 principles on which was founded the Revolution, . . . . . a  
 measure which an Englishman is taught to regard as the  
 source of his liberties." But it is rather in the ironic vein that  
 he appreciated the Revolution's Penal Law period, when, in  
 1827, England defeated Catholic Emancipation (two years  
 before she grudgingly granted it), and sent, instead, 5,000,000  
 bullets to her Irish garrisons:

"I have found out a gift for my Erin,  
 A gift that will surely content her,  
 Sweet pledge of a love so endearing !  
 Five millions of bullets I've sent her.

She asked me for Freedom and Right,  
 But ill she her wants understood :—  
 Ball cartridges morning and night,  
 Is a dose that will do her more good."

And,

" . . . . . a good halter ; . . . . .  
 That love-knot, which early and late  
 I have tried, my dear Erin, on thee."

As to that sad story of England and Ireland—he thought  
 it was sad and shameful for both. And in an appendix to  
*Intolerance*, speaking of that "generous spirit of enterprise  
 with which the pride of an independent monarchy so long dig-  
 nified the struggles of Scotland," he adds, in the bitterness of  
 an Irishman's regret : "It is true this island has given birth to

heroes who, under more favourable circumstances, might have left in the hearts of their countrymen recollections as dear as those of a Bruce or a Wallace ; but success was wanting to consecrate resistance : their cause was branded with the dis-



SLOPERTON COTTAGE, DEVIZES, WILTSHIRE, ENGLAND, WHERE MOORE LIVED MOST OF HIS LIFE.

heartening name of treason, and their oppressed country was a blank among nations." Yet, early in life, he came to deprecate anything of a hostile mind towards England—his ideal being to love England and to feel proud of Ireland\*—and in

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\*Further, it was Moore's saying, that "the Irish never either fight well or work well on their own soil."



1832 said that he had refused a 'Repeal' seat in Parliament because he had "a conviction that Separation from England would follow Repeal of the Union, as naturally and necessarily as light follows day-light." He did add, to these Limerick men (the novelist, Gerald Griffin, and his brother), when asked by them to stand for Limerick, that so hopeless to him were English Whigs and Tories in regard to Ireland, he was almost inclined to risk Repeal. "But I have little fear that the historian (if he ever meddles with such 'small deer' as myself) will say, that, hitherto, at least"—this in 1834—"I have shown an apathy in the cause of Ireland." O'Connell had charged Moore with being apathetic therein, ever since the granting of Catholic Emancipation in 1829. "How far"—he does go on—"the chill of years, increasing hopelessness as to the result, and such instances of injustice to my humble efforts as O'Connell has set the example of—how far these combined causes may palsy me in years to come I know not." But even in 1815 he expressed himself as distracted, after returning to Ireland; and his burst, of Cromwellianism and affection mixed, has a jarring, detached sound to my ear. "We were three weeks in the County Tipperary during our absence, and *mirabile dictu!* were not shot, nor even kilt, which you know ranks lowest on the scale of personal injuries in Ireland. The state of my poor country is indeed frightful. All rational remedies have been delayed so long that there is now none left but the sword, and the speedier it is used the more merciful." And, when entertained before leaving Paris, Moore's (Oct. 11, 1822,) after-dinner speech contained naught of perfide Albion, but from "the fulness of heart which they alone can feel towards England who have been doomed to live for some time out of it," overflowed with England "that most noble country," "to whose real greatness and solid glory—all Irishman as I am, and with my political and historical recollections fresh about me—I am most ready to bear testimony and homage before the world. . . . For that genuine high-mindedness, which has honesty for its basis, . . . .for that good faith, that punctuality in engagements, which is the soul of all commercial as all moral relations, for that spirit of fairness and liberality among public men, which extracts the virus of personality out of party zeal, . . .

for that true and well understood love of liberty . . . for all these qualities . . . the most widely travelled Englishman may proudly say, as he sets his foot once more on the chalky cliffs,— ‘This is my own my native land, and I have seen nothing that can, in the remotest degree, compare with it.’ “This eulogium on the moral worth of England . . . .” (notes the orator’s diary) “was felt more, both by myself and the company, from its being delivered in France, and produced much effect.” His published pieces on England and Ireland were more treasonous to the former than are his Letters and Diary. This spells, in his case, more of honest courage in opinion than of bravado or of seeking his gain. It was natural enthusiasm for a cause or for a theory, and irritation or disgust at details in its supporters; perhaps also at his own Anglicized self. Though sometimes, at least, Moore’s verses, if meant only to rouse feelings well controlled, leading to acts of justice, reparation, mutual good-will, and so on, did stir to revenge: “Miss Emmet, the daughter of him\* who went to America . . . . abstained at all times from speaking of Ireland, as a subject she could not trust herself with; but one night, having been prevailed on to sing my song, ‘Weep on, weep on, your hour is past’, she burst into tears before she was half way through it; and starting up from the pianoforte at once gave vent to all her feelings about Ireland, execrating England in the most passionate manner, and wishing that America and the other nations of the earth would join to avenge Ireland’s cause on her.”†

The little poetical youth could play the massive air, to which he afterwards wrote *Let Erin remember the days of old*. But young Robert Emmet, his doomed fellow student, started up then, ‘as from a reverie’, exclaiming “Oh, that I were at the head of 20,000 men marching to that air!”—words truly

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\*Thomas Addis Emmet (1764–1827), a doctor, afterwards a well known lawyer in New York, elder brother of the rebel leader of 1803, and himself banished for his share in the rebellion of 1798.

†It is in such feelings one looks for the origin of the book that the present-day American descendant, Dr. Thomas Addis Emmet, has lately published, (*Ireland under English Rule*, 2 vols., Putnam’s), an indictment of English action in Ireland; mingled with unjust judgments, if not on the English people, yet on England herself, at all times and everywhere.

recalling him as he was, "so young, so intelligent, so generous, so brave, so everything that we are apt to like in a young man", whose very "enemies lamented the stern policy that dictated his execution."\* Yet—when one misled oppressor died—it was a poet spoke, in *The Irish Slave*, written, (on the death of the Duke of York, brother of George IV, in 1827), by the prosperous survivor of the two Dublin students—who had lived to receive 3,000 guineas for a poem—and published in England in the *Times*; to which Thomas Moore was a contributor at the rate of £500 a year :

"I heard, as I lay, a wailing sound,  
 'He is dead—he is dead,' the rumour flew ;  
 And I raised my chain, and turned me round,  
 And ask'd through the dungeon window, 'who ?'  
 .....

'Is it he ? is it he ?' I loud inquir'd,  
 When, hark !—there sounded a Royal knell ;  
 And I knew what spirit had just expir'd,  
 And, slave as I was, my triumph fell.

He had pledged a hate to me and mine,.....  
 And he now was dead, and—I couldn't rejoice.

He had fanned afresh the burning brands  
 Of a bigotry waxing cold and dim ;  
 He had arm'd anew my torturers' hands,  
 And *them* did I curse—but sigh'd for him.

For *his* was the error of head, not heart.....

If ever a heart made bright amends  
 For the fatal fault of an erring head—  
 Go, learn *his* fame from the lips of friends,  
 In the orphan's tear be his glory read.

A Prince without pride, a man without guile,  
 To the last unchanging, warm, sincere,  
 For worth he had ever a hand and smile,  
 And for misery ever his purse and tear.

Touched to the heart by that solemn toll,  
 I calmly sunk in my chains again ;  
 While, still as I said, 'Heaven rest his soul !'  
 My mates of the dungeon sigh'd 'Amen !' "

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†Washington's Irving's *Sketch Book* ; "The Broken Heart"—on Sarah Curran and Robert Emmet.

In generosity of heart, as an English Liberal too, the poet wrote, on the murder of the Tory Prime Minister, Mr. Perceval (1812), lines that perhaps the prose of his co-worker, Peter Plymley, might have jibed at :

"In the dirge we sang o'er him no censure was heard,  
Unembittered and free did the tear-drop descend ;  
We forgot, in that hour, how the statesman had erred,  
And wept for the husband, the father, the friend."

Had he, good man,

"ne'er for our ruin aspired to be *great*,

.....  
His children might still have been bless'd with his love,  
And England would ne'er have been cursed with his sway."

If these pieces speak of Moore's kindly heart—he once met Canning with his little daughter, and vowed never more to write against that child's beloved father—they tell also of the great cause of religious freedom which Moore had most at heart. It was the time of the Holy Alliance,

—"Most Holy, and High, and Legitimate, *squad*,  
First *Swells* of the world, since *Boney's in quod* ;.....  
.....emperors and kings,  
Like kites made of *foolscap*.....*high-flying* things,.....  
To whose tails a few million of subjects, or so,  
Have been tied in a string, to be whisk' to and fro,  
Just wherever it suits the said foolscap to go—  
This being all settled, and freedom all *gammon*,  
And naught but your Honours worth wasting a d—n on,"—

when governments too did more plainly reflect the "follies and vices of kings" ; as had said the great Whig of a generation before. It was Burke also who said : I do not ask, have I not the right to make my people miserable ? but is it not my interest to make them happy ?" But now the talk was of repression, rather than of prevention ; of the rights of property, rather than of its duties ; of the danger in allowing men to speak of grievances, for fear lest they should organize revolution ; of authority, order, and law, to the exclusion of their complements in tolerance, freedom, and indeed justice. There was about as much chance, then, of a Whig\* ministry,

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\*Moore's party.

"But bees, on flowers alighting, cease their hum ;  
So, setting upon places, Whigs grow dumb !"  
—(*Corruption, An Epistle.*)

Sydney Smith said, as of a thaw in Nova Zembla. That famous Protestant canon had written his *Peter Plymtey's Letters*, beginning in 1807, on behalf of equal rights to Catholics, railing at the policy which divided the inhabitants of the British Isles, in face of the then all-devouring foe Napoleon ;\* who,

With baleful lustre blinds the brave and free,  
And dazzles Europe into slavery.

And yet as late as 1830, two years before the Whig Reform Bill, Macaulay could make his maiden speech in Parliament, in favour of equal rights for unemancipated Jews ; and in that first quarter of the last century, when O'Connell too was working to his victory of Catholic Emancipation ; and Wilberforce to his victory over the Slave Trade ; and the whole Whig and Liberalizing Party to the Revolution of the Reform Bill, to the shifting of the basis of political power from the aristocracy to the middle classes ; the modifying of the game laws, fortress of that landed interest ; to the plans for popular education, the hopes for free trade, the visions of an era of industrial peace, and to the passing away of the last signs of absolute kingship, that bugbear, perhaps that real danger,—then it was that Moore had his say against

"foolish kings,  
Those fixed inevitable things—  
Bores paramount, by right of birth.  
.....  
Regular *gratia Dei* blockheads,  
Born with three kingdoms in their pockets."

\*Whose 'Holy Alliance' English jailer, however, Moore judged as severely as, to-day, Lord Rosebery's *Napoleon* judges :—

"Sir Hudson Lowe, Sir Hudson Low  
(By name, and ah ! by nature so)."

In the months before Waterloo, Moore's letter of March 27, 1815, runs : "What do you think now of my supernatural friend, the Emperor ? If ever a tyrant deserved to be worshipped it is he. Milton's Satan is nothing to him for portentous magnificence—for sublimity of mischief. If that account in the papers be true, of his driving down in his carriage like lightning towards the royal army embattled against him, bareheaded, unguarded, in all the confidence of irresistibility—it is a fact far sublimer than any that fiction has ever invented, and I am not all surprised at the dumb-founded fascination that seizes people at such daring. For my part I could have fancied that *Fate herself* was in that carriage..... What desperate weather ! all owing to Buonaparte."

And yet these *crown'd* offenders moved not his wrath so much as

"your pretenders,  
Your mushroom rulers, sons of earth,  
Who.....  
though too dull to manage shops,  
Presume, the dolts, to manage nations."\*

He means the type of aristocratic ruler and his followers who, a generation before, lost America, shouted at Burke that they would never treat with the Americans until these rebels came with halters round their necks; and who would not deign to enquire where a congress of vagrants was to be found, until, in the changed times, they themselves had to go to find this congress, in order to plead, as it were, for mercy at its hands; the men, he means, whose belief was that Americans would show fight only as long the English shrank from all extremity of fierceness; who held, in short, that force is the true remedy, and that the more gentle you are with people the more they will be disposed to rebel. The slave-lord among these 'dolts' thus condoles with the cotton-lord:

"Alas! my dear friend, what a state of affairs!  
How unjustly we both are despoiled of our rights!  
Not a pound of black flesh shall I leave to my heirs,  
Nor must you any more work to death little whites.

Both forced to submit to that general controller  
Of Kings, Lords, and cotton mills, Public Opinion,  
No more shall *you* beat with a big billy roller,  
Nor *I*, with the cart-whip, assert my dominion.

Whereas, were we suffered to do as we please  
With our Blacks and our Whites, as of yore we were let;  
We might range them alternate, like harpsichord keys,  
And between us thump out a good piebald duet.

But this fun is all over."

Coming down to devotees of *liberté*, he found that "the Liberals in Italy dread the grant of Emancipation to the Catholics, as it would give such a triumph to the Papacy, the great object of their detestation"—this in the days ere poor saddened Sydney Smith snivelled that 'there will be no one left to emancipate before I die.' And this Liberal action Moore philosophises over in his way as "very intelligible, and shows

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\* *Fables for the Holy Alliance*, iii.

what new and different colours a question may receive from local interests." The *sæva indignatio* of Burke had sorrowed : alas ! I fear that the genuine love of liberty anywhere is extremely rare. And Moore's "lash on the back of the bigot and the oppressor," as he describes it, resounds thus, for the sons of the Revolution :

"How all, in short, that makes the boast  
Of their false tongues, they want the most ;  
And while, with Freedom on their lips,  
Sounding her timbrels, to set free  
This bright world, labouring in the eclipse  
Of priestcraft and of slavery,  
They may themselves be slaves as low  
As ever lord or patron made,....."

Much of such work as this must be ephemeral in a way. Yet it is suggestive ; more perhaps than we know ; it has many lessons even ; it has interest, historically, in tracing the political and constitutional history of England and her dependents ; and also in a wider world, in the history of toleration, and in the whole question of liberty and order ; shall we say now, of government and anarchy ?

They were men of practice rather than of philosophy of the social state, these Macaulay, Sydney Smith, Wilberforce, O'Connell, Moore ; they raised many questions that they hardly thought deeply in, hoping to steer their middle course—

"'Twixt Blasphemy and Cant—the two  
Rank ill with which this age is cursed—  
We can no more tell *which* is worst.  
Than erst could Egypt, when so rich  
In various plagues, determine which  
She thought most pestilent and vile—  
Her frogs", [that is, Revolutionists],  
Croaking their native mud-notes loud,  
Or" [—and now for the comfortable Tories—]  
'her fat locusts, like a cloud  
Of pluralists, obesely lowering,  
At once benighting and devouring."\*

They asked for their reforms, concerning Franchise, Penal Laws, Game Laws, Slave Trade, Education, Free Trade,

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\* *Fables for the Holy Alliance*, iv.

Peace ; they somehow thought that if religions were equal before a state, people's minds and souls would trouble them and stir them no more. For Sydney Smith, Methodists and Evangelicals, in their revival earnestness, and Puseyites in their early austerity, were all madmen together. And Moore's Catholicism—so-called—made little of monkery and ideals of spiritual life, and of self-denial beyond the common. The philosophy of the religion of them all was that there was a kindly Deity, a sort of very bon Dieu ; if it may be said without irreverence, a sort of prince of good fellows ; “that God of benevolence, in whose hands sin and death are but instruments of everlasting good, and who, through apparent evil and temporary restrictions, bringing all things ‘out of darkness into his marvellous light,’ proceeds watchfully and unchangingly to the great, final object of his providence—the restoration of the whole human race to purity and happiness.”\* This benevolent doctrine, in Moore's opinion, “. . . . . goes far to solve the great problem of moral and physical evil.” In which opinion, I suppose, few who think would say much but that they sadly disagree with Moore ; and, following philosophy both simple and deep, could do aught but fall back on the fact that evil is a problem absolutely beyond human solution, and never less near being solved, than when kindly men talk sentimental Deism.

For nature is one with rapine,  
A harm no preacher can heal.

Compare in this following generation Tennyson's attempt in *In Memoriam* ; and his cries, and half despair, and truer trust ; though with ‘faith’, only of feeling, not of intellect. And then Newman's passage in the *Apologia*,† on the aspect of this world, the “vision to dizzy and appal”, that “inflicts upon the mind the sense of a profound mystery.”

This has carried us far. But not too far, if it shows us Moore hardly thinking out his Liberalism. And it is in the political, even as in the religious sphere. This attack on kings, on the powers that be, even on the very abuses of their power,—it was such railing, by a Voltaire, which helped to

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\**The Epicurean*, ch. xvii.

†*The Epicurean*, ch. v.



hollow out the ground for the revolutionary explosion which doubtless would have blown his contemptuous person away, together with the rulers he helped to bring into contempt. But Moore did not fail to see of what stuff revolutionary ringleaders are often made, "aventuriers, malfaiteurs, gens tarés ou déclassés, hommes perdus de dettes et d'honneur, vagabonds, déserteurs et soudards," (as Taine tickets them), "tous les ennemis-nés du travail, de la subordination et de la loi," who "se liguent pour franchir ensemble les barrières vermoulues qui retiennent encore la foule moutonnaire." And Moore judged fairly on the spot that high words and low deeds make up so great a part of a revolution, that—as 'liberals' are admitting, in the United States even as in France—it is but a sad cause for a brave and honest man to offer himself in ; seeing that its results compare so poorly with what went before ; and seeing that its later better consequences are due, not to it, but to society's instinct towards what saves and preserves. What a great promise met us in America : its early orators' Asiatic prose the disheartened poet (a man scrupulous in honesty), now (1806) in his more dispassionate language transcribes :

"Here god-like Liberty's herculean youth  
Cradled in peace, and nurtured up by truth  
To full maturity of nerve and mind,  
Shall crush the giants that bestride mankind !  
Here shall Religion's pure and balmy draught,  
In form no more from cups of state be quaff'd,  
But flow for all, through nation, rank and sect,  
Free as the heaven its tranquil waves reflect.  
Around the columns of the public shrine  
Shall growing arts their gradual wreath entwine,  
Nor breathe corruption from their flowering braid,  
Nor mine that fabric which they bloom to shade.

.....  
Oh golden dream !.....  
But is it thus ?  
.....

No, no, believe me 'tis not so—even now,  
While yet upon Columbia's rising brow  
The showy smile of young presumption plays,  
Her bloom is poisoned and her breath decays !  
.....

Already has the child of Gallia's school,  
 The foul philosophy that sins by rule,  
 With all her train of reasoning, damning arts,  
 Begot by brilliant heads or worthless hearts.....  
 Already has she poured her poison here  
 O'er every charm that makes existence dear.  
 .....

Already in this free, this virtuous state,  
 Which Frenchmen tell us was ordained by Fate,  
 To show the world what high perfection springs  
 From rabble senators and merchant kings—

Even here already patriots learn to steal  
 Their private perquisites from public weal ;.....  
 Those vaunted demagogues, who nobly rose  
 From England's debtors to be England's foes ;\*

Who could their monarch in their purse forget,  
 And break allegiance but to cancel debt,†  
 Have proved at length the mineral's tempting hue,  
 Which makes a patriot, can unmake him too,  
 Oh ! Freedom, Freedom, how I hate thy cant !"

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\*"I trust I shall not be suspected of a wish to justify those arbitrary steps of the English government which the Colonies found it so necessary to resist ; my only object here is to expose the selfish motives of some of the leading American demagogues." (Author's note.)

†"The most persevering enemy to the interests of this country amongst the politicians of the western world has been a Virginian merchant, who, finding it easier to settle his conscience than his debts, was one of the first to raise the standard against Great Britain, and has ever since endeavoured to revenge upon the whole country the obligations which he lies under to a few of its merchants." (Ib.)

W. F. P. STOCKLEY.

## DR. CHEYNE'S LATEST CONTRIBUTION TO THE STUDY OF THE PSALTER.

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**I**N the last number of the *QUARTERLY* there appeared a welcome article entitled "Ethics of Religious Controversy," and it would be well for critics and reviewers to lay to heart its sensible suggestions. But we feel sure that the writer of that article would be one of the first to admit that the stress of temptation is very severe when one is suddenly confronted with this new version of the Psalms. The title-page, indeed, contains a gentle hint of the impending revolution, but we must travel farther before we get any idea of its alarming sweep. This work, we are told, is in place of a second edition of an earlier work, suggesting, what is plainly stated in the preface, that no further progress is possible along the line of the regular critical methods, and that the author has been compelled to strike out boldly in a new direction. The results are sufficiently startling. Hence, as has been said, it is difficult to handle the book calmly; either one must hail the new discovery with delight and speak of an 'epoch-making' book or feel oneself driven to denounce it as a strange perversion of scholarship, marking the sad ending of a brilliant career. For ourselves we must frankly confess that we would have preferred a new edition of the former commentary, bringing it up to date by reviewing the results of scholarly work during the last fifteen years. The reason that the author has not done this is stated in the following words: "In order that the exegesis of the Psalter and the historical illumination of the results of that exegesis may progress, it is urgently necessary to give a keener and more methodical examination to the traditional text. Far be it from me to underrate the value of that earlier criticism, in which it has been my privilege to participate. But I cannot close myself to the conviction that the old methods have done nearly all that they are capable of doing, and that virtually new

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(The Book of Psalms, translated from a revised text, with Notes and Introduction, in place of a second edition of an earlier work (1888) by the same author, T. K. Cheyne, D. Litt., D.D., Oriel Professor of the Interpretation of the Holy Scripture in the University of Oxford, and Canon of Rochester. In two volumes. Published by Kegan Paul, Trench, Trubner & Co., Ltd., Dryden House, Gerrard St., W. London, 1904.)

methods must be superadded to the old." And following this new method he reaches the conclusion, "that we have in our hands, closely but not inseparably united, two Psalters—a newer and an older. The newer is preserved in two chief forms—the Greek of the LXX. and the Massoretic Hebrew text. Both these represent independent recensions of the text, and underneath both it is still possible, sometimes with more, sometimes with less confidence in the smaller details, to recognise an earlier text of the psalms, which approaches the form which they received from the writers or from the earliest editors."

Let us before we go any farther take a short simple illustration of what this means. The beautiful little psalm cxxxiii. reads as follows in the Revised Version:—

1. Behold, how good and how pleasant it is  
For brethren to dwell together in unity !
2. It is like the precious oil upon the head,  
That ran down upon the beard,  
Even Aaron's beard ;  
That came down upon the skirt of his garments ;
3. Like the dew of Hermon,  
That cometh down upon the mountains of Zion :  
For there the Lord commanded the blessing,  
Even life for evermore.

Duhm who, like Cheyne, believes that metrical considerations can be effectively used in the criticism and correction of the text, comes to the conclusion that this Psalm has been worked over in the interest of the later Jewish Church. On this view it was originally a brief oracle on the blessing of unity in family life; the subject is illustrated by two figures, the oil used to anoint the welcome guest (John xii. 3) and the rich dew of Mount Hermon. A late Levitical editor has added other features, such as Aaron's beard and Mount Zion, thus interfering with the regularity of the metre and confusing the illustrations, e.g., How can the dew of Hermon come down upon the mountains of Zion? This seems not unreasonable, and so far there is nothing lost for purposes of edification, as the modern preacher is just as much at liberty as his ancient brother to transfer the appeal for unity from family to church life.

Behold, how good and how beautiful it is,  
 When brethren sit together,  
 It is like the precious oil upon the head,  
 Which flows down upon the beard,  
 Which flows over on to the edge of thy garment ;  
 Like dew from Hermon ;  
 For there has Yahwè commanded a blessing ;  
 Life for evermore.

—*Duhm's Critical Version.*

Let us take now Dr. Cheyne's treatment of the same Psalm. He says : "Perhaps the most difficult of all the psalms. The exegetical problems are great, and the resulting critical problem—viz. how the psalm as a whole is to be understood—is proportionately great." This seems to be an exaggerated statement ; however, we shall see that Dr. Cheyne in his effort to reduce the difficulties has, at all events, materially reduced the psalm. He finds that "even Duhm" has not been radical enough. Here, then, is the result of a radical treatment :

1. "Behold, how good and how pleasant it is to dwell in Jerahmeel,  
 For there Yahwè appointed a blessing for ever."

We are told that "the editor of course looked for something better" ; a statement that leads us to remark that the editor was a wise man to whom we owe a debt of gratitude.

This leads us to note the distinctive feature of the author's textual criticism. The forms "Jerahmeel" and "Jerahmeelite" do not occur at all in the received text of the Psalter, but in Dr. Cheyne's version they occur over two hundred times, in fact the pages swarm with "North Arabians," "Ishmaelites," and "Jeerahmeelites." These tribes turn up in most unexpected, and, if the expression is not uncritical, we would say most unwelcome places ; that is, we find them not only in historical and national psalms, but in songs that we have been accustomed to regard as deeply spiritual and intensely personal.

Surely God is good to Israel,  
 Even to such as are pure in heart.      B.V. LXXIII : 1.

Duhm renders this as follows :

Only good is God to the righteous,  
 Yahwè towards the pure in heart.

This involves a very slight change of the text, simply a different division of the word "to Israel" ; the reason given being that the psalm is a record of individual experience and is no-

where concerned with the contrast between Israelites and non-Israelites. In Dr. Cheyne's version, however, Arabia, Cusham and Jerahmeel appear several times in the poem, and the first two lines read thus :

Surely Yahwè is good to Israel,  
Those of Jerahmeel (he abhors).

Let us turn now to that well-known, beautiful Psalm, cxxxvii. Fortunately, for purposes of comparison, we can use a recent translation by Prof. Herman Gunkel, of Berlin, "an able and original scholar of the younger generation," to whom Dr. Cheyne dedicates his new book. The following is a part of Prof. Gunkel's version :

By the rivers of Babylon  
There we sat down and wept,  
When we remembered Zion.  
Upon the poplars in that land  
We hung our harps.  
For there our captors demanded  
That we sing a song ;  
They required us to be joyful, saying :  
'Sing us one  
Of the hymns of Zion ' !  
How could we sing  
The hymns of Yahwè  
In a strange land ?

As may be seen in Dr. Cheyne's version, a considerable transformation has taken place :

On the heritage of Jerahmeel we wept, remembering Zion ;  
The Arabs in the midst thereof had beaten our harps to pieces.  
For our captors had even asked of us harp-playing and song ;  
"Raise before us a Hallel, ye harpers of Zion."  
How could we sing songs of Yahwè on foreign ground ?

Further examples may be taken as follows :

Yea, the sparrow hath found her an house,  
And the swallow a nest for herself,  
Where she may lay her young,  
Even thine altars, O Lord of Hosts,  
My King, and my God.

—B. V. lxxiv. 2.

"Though Zarephath reject thy house, and the race of Jerahmeel,  
Thine altars do I choose, O my King and my God " ! —*Dr. Cheyne.*  
Judge me, O God, and plead my cause against an ungodly nation :  
O deliver me from the deceitful and unjust man.  
For thou art the God of my strength ; why hast thou cast me off ?  
Why go I mourning because of the oppression of the enemy ?

—B. V. xliiii. 1-2.

Preserve me, (O Yahwè) my God, from the tribe of the Arabians,  
From the race of the Jerahmeelites rescue thou me,

Rouse thee, O God of my succour ; why dost thou forget me,  
While I walk tremblingly, the Arabians pressing me hard ?

—Dr. Cheyne.

These are fair specimens of sweeping changes to be found on almost every page of the book. They are based upon two assumptions : 1st, that the Hebrew text is in a very corrupt condition ; and, 2nd, that Dr. Cheyne's new theory must play a great part in the correction of the same. We think that it is a matter of just complaint that the nature and origin of this new theory is not clearly set forth in the Introduction. It rests upon a discovery or conjecture made by Dr. H. Winckler, the German archæologist. We are told it is superfluous to exhibit here and to discuss at length the evidence for the existence of a north Arabian kingdom of Musri. Further, we are told that it is assumed in the present work that the deportation of the Jews, which has left most traces on the later writings of the Old Testament, was not to Babylonia, but to that part of North Arabia which was called by the Jews Jerahmeel or the Negeb. But of course this cannot appear until Dr. Cheyne has restored the original text. Then we have this statement : "I refrain from attempting a sketch of the history of the Israelites in the times immediately preceding and following the exile. Such a sketch would only be effective if thoroughly furnished with evidential notes, and this would take up too much space in an Introduction to the Psalter. The reader would do well to give a thorough study to the portion of *Critica Biblica* relative to the Books of Kings, and if possible to consult from time to time the portions concerned with the prophetic writings. He will thus be able to comprehend better the method and the results of which these inquiries form a part." This is all very well for Dr. Cheyne, who must be supposed to know the precise nature of his own theory and the varied applications of which it is capable, but we submit that the student who buys a new and expensive edition of the Psalms is entitled to a clear statement of the meaning of a theory which exerts its influence on every page. This is not an unreasonable request ; we are not asking to have a whole system of philosophy condensed into a few pages. This is a case that deals with places and events in the history of Israel and is capable of being expressed in outline with approximate dates. There are many interesting

remarks in the Introduction, but this thing that we need so much, under the circumstances, we cannot find. After we have read Dr. Cheyne's article in the Hibbert Journal on "Pressing Needs of the Old Testament Study," we have very much the same feeling of vagueness and uncertainty; one thing only is clear, that any word or combination of words can under this system of manipulation be transformed into Jerahmeel. So far as we can see these particular changes in the text are made on the strength of the general theory, and in most cases without any other evidence. Let us take one or two illustrations of this point:

Hear the right, O Lord, attend unto my cry;  
Give hear unto my prayer, that goeth out of feigned lips.

—Psalm xvii. 1.

Baethgen and Wellhausen find no fault with the grammar of the second clause of this verse but it cannot pass the keen scrutiny of Dr. Cheyne. Here is the result:

Hear my cry, O Yahwè, attend unto my wail,  
Make haste to help me from the tribe of Jerahmeel.

Our author tells us that the text "is strange Hebrew, and the whole clause, 'Give hear unto my prayer (that is uttered) with no deceitful lips' (Driver), is a weak supplement to 'Hear my cry, attend unto my wail'. Ps. xvi, 4-6 leads us to expect a reference to the North Arabian oppressions, and quite without a thought of this passage, the present writer has found himself compelled in another psalm (xliii. 1) to amend *mrnh* into Jerahmeel." To follow out this line of argument we must look up the two passages here referred to, as having been subjected to similar emendation:

Their sorrows shall be multiplied that exchange the Lord for another god:  
Their drink offerings of blood will I not offer,  
Nor take their names upon my lips.

—B.V. xvi. 4.

The first line is admitted to be difficult, but the scholars before mentioned do not offer any substantial deviation with regard to the last two lines. But Dr. Cheyne is dissatisfied with the whole verse, and under the magical influence of the new theory it undergoes a complete transformation; in fact it would be impossible to recognize it in its new dress:

How many are the armies of Jerahmeel,  
The hosts of Edom and Ishmael!



Preserve me, O God ! from Zarephath,  
From Maacath and Cusham-Jerahmeel.

On the first line comment is made that Duhm's emendation is possible, but it does not restore the true text. The key to the problem is to be found in the little word "another" (achr), which is one of the many corrupt fragments of Jerahmeel. In a similar fashion we are told that "I will not offer" (blasyk) may be disregarded; "it has arisen out of Jerahmeel, the letters of which were first transposed (through the scribe's ignorance of history), and then corrupted." This represents the manner in which the whole text is treated. We have already given Dr. Cheyne's transformation of Ps. 43, verse 1. Duhm's explanation of the phrase translated "ungodly" is that it refers to the Jews, as in this form it is not applicable to foreigners. Dr. Cheyne's statement is that it is plain from xl.ii, 11, that the enemies referred to are foreigners, and he adds with charming simplicity "surely ungodly (lo chasid) can only come from Jerahmeel; parallels are not scarce." Certainly not. Dr. Cheyne can provide us with plenty of parallels; wherever there is any difficulty in the text Jerahmeel and cognate clans are almost sure to appear on the scene. Those who have paid any attention to our author's contribution to the *Encyclopaedia Biblica* are already acquainted with the wholesale manner in which the new theory is applied to the solution of textual problems. Suppose we admit that a kingdom of Musri has been discovered both in N. Syria and N. Arabia; suppose we admit further, for the sake of argument, that in the traditions there has been confusion between Musri and Mizraim (Egypt); proceeding then along this line, we accept Dr. Cheyne's statement: "To me it has long appeared that the only question among open-minded scholars ought to be, how far may we apply this result in explanation or illustration of Old Testament passages?—to which my own answer is, that in a number of cases it is only such an application which enables us to form a clear, intelligible, and consistent historical picture." Even when we have consented to go so far and begin to indulge a faint hope that some day a little clear light may come from this quarter with regard to the origin of the Hebrew people, even then we are astonished at the reckless manner in which Dr.

Cheyne applies his favorite hypothesis and all-absorbing theory. He seems to be always thinking of this new child and pathetically pleading that it may be allowed a chance to live and grow; he does not seem to realize that by pushing it into premature prominence and undue publicity he is imperilling any little life it may happen to possess. Those to whom Dr. Cheyne must make his appeal, and those who must finally judge of the merits of such a theory, scarcely need to be so continually reminded that the demand for open-mindedness is as great as ever. From the Hibbert Journal, vol. I, page 762, we take the following quotation :

“And if in course of explaining what I mean I have unintentionally startled any of my readers beyond what he can bear, let him accept my sincere regrets. I have indeed been driven of late to suppose that, like Lao-tse, the Chinese philosopher, I must be descended from a family in the village of Bitterness. But this is not my fault; and in the end, truth is sure to heal the wounds which it has made. In this connection I would ask leave to refer to the postscript to the editorial preface in vol iv. of the *Encyclopaedia Biblica*, and by way of illustration to the article ‘Servant of the Lord’ in the same volume (especially par. 6), where it is shown how Is. liii. is a record both of a less and of a more advanced conception of the Jewish religious ideal. ‘The ardent universalism which distinguishes (the four passages on the Servant of the Lord) in their present form is due to a later editor, who had before him a text which was already corrupt, and which, apart from this, did not answer to his own spiritual aspirations. Let us continue to read them as they stand in the Massoretic text and the Septuagint as monuments of the loftiest pre-Christian Jewish piety.’ And to those who abhor changing their minds, and who more than anything else fear a reputation for instability, I would quote the truthful words of a recent philosophical writer : ‘The wisest of critics is an altering being, subject to the better insight of the morrow, and right at any moment only ‘up to date’ and ‘on the whole.’ When larger ranges of truth open, it is surely best to be able to open ourselves to their reception, unfettered by our previous pretensions.’ (W. James, *The Varieties of Religious Experiences*, p. 333.)”

Appeals of this kind are scattered profusely through all Dr. Cheyne's recent work, but they do not of themselves carry us very far. One is almost tempted to think that when there is so much protest there is also a secret feeling of uncertainty in

the hasty application of this revolutionary method. It is well known to Old Testament scholars that much careful work needs to be done upon the text, and that the slender apparatus at our disposal makes this work to be one of the greatest difficulty and delicacy. We believe that in the future much good work of this kind will be accomplished ; but by the nature of the case the movement must be slow, and to hurry it forward, in the manner that Dr. Cheyne has attempted in these two volumes, seems likely to increase the timidity and prejudice which he deplores. Of course the accepted results of historical criticism must have an influence in this department ; but that does not mean a wholesale change of the text on the strength of mere conjecture. Conjectural emendation has in many cases produced happy results and gained general acceptance ; but it is evident that here especially we need to be on our guard against reckless caprice. A comparison of the revised English version of the Old Testament, compared with that of the New Testament, shows the great difference in the two cases and the backwardness of this particular work in connection with the Old Testament. In the New Testament sphere there is abundance of documentary material, and the revisers gave to the public a text that had undergone considerable revision ; in the Old Testament this work was practically left untouched. Let us take a simple illustration :

For the transgression of Jacob is all this,

And for the sins of the house of Israel.

What is the transgression of Jacob ? is it not Samaria ?

And what are the high places of Judah ? are they not Jerusalem ?

—Micah i. 5.

It does not require much insight to see that the phrase “high places” is wrong in this case ; it does not suit the context, and it spoils the balance of the passage. Here the parallel structure of the passage helps us so that even if we were left to conjecture we might restore the text and read

“What is the *sin* of Judah ?”

It has been pointed out how easily in this case, from the similarity of two letters in the ancient Hebrew alphabet, a change could take place. But we are not left to conjecture ; three ancient versions have the word *sin* in this particular place. In spite of all this array of evidence the

revisers left the text uncorrected; evidently they did not regard such work as coming within the sphere of their operations. On that side, at least, they did not give to their constituency the latest results of careful scholarship.

Apart from the peculiar theory which gives the distinctive colour to Dr. Cheyne's latest treatment of the Psalter, his criticism seems to be too personal and arbitrary in its character. For example, he cuts the first Psalm into two parts; according to his theory it consists of an original fragment beginning "Not so fare the wicked," v. 4, and a later preface vv. 1-3. This seems rather hard treatment to be meted out to this short, simple passage, which was probably written as a preface to the Psalter, and which makes the impression of being all of one piece. The reason given for the bisection is as follows: "Since only lines 10-15 are metrical (trimeters) this psalm must be composite." But this is not at all conclusive; there is too little agreement among scholars as to the nature of Hebrew metre to warrant this dogmatic tone in the application of the results drawn from that quarter. Gunkel, who pays considerable attention to metrical structure, maintains that Psalm 1 is not, strictly speaking, a hymn or a lyric. Duhm can, on occasion, apply metrical considerations with sufficient vigour and rigour, but in this case he says that the psalm has no strophes but only irregularly formed lines which in style and expression come near to prose; in fact, it is not a song to be sung but an aphoristic, poetic preface. Coming to details, Dr. Cheyne changes the word "law", in the first line of the second verse, into "fear", and says "When a tautology can be so easily corrected, let it be corrected." Thus he issues his critical fiat and settles the matter from the standpoint of his own personal feelings. Again, in the last line of his poem, he changes "way" into "expectation" on the ground that it is "an unpleasing repetition, due, as so often, to a scribe's error." But can we be quite sure that the repetition is unpleasing? Is it not just possible, when we consider the subject of the psalm and the contrast that runs through it, that this very repetition may be simple but very effective rhetoric? In Psalm 126 "turned again the captivity of Zion" is changed into "restored Zion to life" on somewhat similar principles. With regard to Psalm

23, the extreme view is accepted that it also is composite on the ground that the two ideas of the shepherd and the host imply different origin ; examples might be multiplied indefinitely, but we have given sufficient to show the general character of the work here attempted.

This commentary is evidently not for the general reader, nor even for the average student, but for the specialist, who can calmly investigate each particular point and sift the evidence carefully. If the author is really anxious, as he sometimes seems to be, to avoid the charge of "soberness" and to earn the credit of being "open-minded", this piece of work will certainly help in that direction. The question is forced upon us, is it not possible to have too much open-mindedness? It may be because of our weakness which leads us to crave for definite evidence, but in reading these volumes we have sometimes felt as if we were plunged into chaos, that is into a place where anything may mean anything and where everything means *Jerahmeel*. Knowing our deep debt of gratitude to Dr. Cheyne for so much good work in the past, we wish to give some favourable specimens of his linguistic knowledge and literary skill, but we open the book again and this is what we find, Psalm xc, verse 1 :

O Lord, thou wast our stronghold,  
Our God age after age,  
Before thou didst exalt *Jerahmeel*,  
And didst magnify *Missur* and *Ishmael*.

We dwell for a moment on the fine unconscious humour of the exegetical note which accompanies this translation. " '*Jerahmeel*,' in the haze of tradition, took vast proportions to the Israelites," and we close the book, feeling that we must, at all costs, get away for a while from this haze, and that for some time to come we would rather not hear or see, in the Psalms or elsewhere, the word *Jerahmeel*.

W. G. JORDAN.

## THE CLASSICS AND OUR VERNACULAR.

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**T**HE value of the Classics for educational purposes is a theme as well-worn as it is important. It is a theme, however, which would have been treated, possibly with less frequency, certainly with more profit if, in every case, the disputants had prefaced their discussion by a clear statement of what they meant by education and of the reasons why they valued it.

If the one object of education was to produce results capable of being transmuted into the maximum of coin in the minimum of time—a rigidly practical training which is, obviously, all that a very large number has either the capacity, the opportunity, or the ambition to acquire—why, then, the Classics might find it difficult to justify their importance; above all, in an age which offers daily hecatombs to the great goddess of Commerce. But, on the other hand, if in the rush and turmoil of our modern life, a trained mind and a sane judgment are worth having, merely for their own sake, if good taste and instincts of reserve and proportion won by familiarity with the highest existing standards are a joy to their possessor and, through him, beneficial to a world the besetting sins of which are due in no small degree to the lack of those qualities, if a just appreciation of language, literature and the progress of civilization makes us rich indeed even though it may add nothing to our bank account, in short, if it is true, after all, that the best in life can not be bought, stolen nor acquired by legislation, and men realize that there is a training by means of which one may hope to acquire some part of these priceless possessions; why, then, we have nothing to fear for the great Classics of Greece and Rome. In such a system of education their value is beyond disproof, their place can not be filled by any substitute or number of substitutes. It is true that this education is not for all. At the same time, it is open to all. Its acquisition is not a matter of social privilege, in these days of growing generosity in endowment, even poverty has ceased to be such a serious hindrance as it once was. A recent

economic writer, discussing the non-essentials in the best training for modern life, relegates the Classics to what he calls "the education of the leisure classes." I object to such a definition of education. To a large extent it is false and misleading. Furthermore, so far, at least, as this country is concerned, there is really no such thing as a leisure class. Above all, even if the definition I have quoted were tenable, we could not consign to that sphere a branch of learning which has been, practically, the chief intellectual stimulus not of wealthy idlers and dilet-tanti but of the men who represent the highwater mark of effort and accomplishment, the best, the brightest, and, withal, the busiest, for the last five hundred years.

It is not to my purpose, however, to dilate at large upon the merits of the Classics. I prefer, rather, to touch upon one aspect of the question. My reason for doing so is not because I expect to contribute anything new to the discussion, nor, yet, because this aspect, itself, is new—on the contrary, it is one of the oldest—and, certainly, not because it is the only aspect of importance—I refuse to yield one iota of the claims which have been made for the subject to which my life is devoted—but, simply, because, in our country and at this particular time it seems worthy of renewed emphasis. I refer to the question of the Classics and our vernacular. In other words, does the English which we write and speak need attention? Have the Classics any value for this purpose, and, if so, how shall we enhance their value? I hardly need to add that this discussion rests on the assumption that the ability to speak and write one's own language correctly is not only desirable but of paramount importance. Language is the vehicle of thought. Whatever a man's ideas may be, his training has been culpably deficient if he does not or can not express them, at least, correctly.

Of course, all languages have a natural growth. Time itself is an inevitable cause of change. But change is also a matter of culture, of political and social conditions. Moreover, there are certain crucial periods of contact with such conditions during which change proceeds at a more rapid rate and the danger of serious and permanent deterioration is imminent. One of the most trying situations of this sort is when a language, and, above all, a cultivated language, which has already had a

long and brilliant career, is suddenly called upon to follow in the wake of political conquest, extension, or assimilation. Such a crisis came to Greek when it was called upon to follow the conquests of Alexander. The like came to Latin when it was called upon to tramp after the Roman legionaries to every part of the world rich enough to suggest the desirability of 'benevolent assimilation.' So far as the mere matter of extension was concerned neither the Greek nor the Latin tongue had ever had such a brilliant period. The conquered races vied with each other in their efforts to learn them. It is almost a literal truth that the grandsons of men who had known Alexander the Great lived to see Syrians, Jews and what-not contributing books which were widely read to the current Greek literature of the day. So, a century and a half after the campaigns of Caesar, campaigns during which the use of interpreters was not infrequently necessary, Juvenal could say, in his characteristic fashion, that all the world had yielded to Greek and Roman culture,

Nunc totus Graias nostrasque habet orbis Athenas,  
Gallia caesidions docuit facunda Britannos,  
de conducendo loquitur iam rhetore Thule.

It would seem as if in this country the English language was now passing through a similar experience. It is truly a magnificent instrument of thought which has been developed, diversified and strengthened by many a previous struggle, but a situation like this has no parallel in its experience. For, at least, a generation the nations—and for the most part, too, the nations speaking either a mere dialect of English or else an utterly foreign tongue—have been flocking to our shores at a rate which is now not far from one million a year. We shall better understand what this means when we realize that here, one may say, is an invasion of barbarians beside which, so far as its size is concerned, those other invasions, when the hordes of Attila and the hosts of the Goth, the Vandal and the Lombard poured down upon the Western Empire, are nothing but a mere corporal's guard.

As it was in those other days of Greece and Rome, so is it now with us. Our aliens, too, are wonderfully adaptable. They vie with each other in acquiring the language. But how



often is their model not only uncultivated and imperfect, but even debased. At all events the result is bound to be something of a compromise. Our streets, our comic papers, the stories we tell, the books we read, everything, seems to be full of dialects. But as utterly weary of them as one often becomes, one never feels the burden of them so much as when one's children come trooping home from wherever they have been with a choice assortment to be painfully eradicated. And the worst of it is, how few children there are who have a standard at home to which they may return.

Is this constant pressure from every side destined finally to reduce our English to a sort of a common denominator like Hellenistic Greek, like the Latin of the late emperors? I am not concerned here with the answer to this question. Nevertheless it should be clearly understood that, if such is to be the fate of our American English, we should have absolutely no right whatever to fasten the blame for it upon that portion of our barbarians which happens to be composed of aliens. Alien influence is, of course, a factor of linguistic disintegration and decay, but it is one which grows in power only as our native defences are weakened or neglected. For example, when Greek and Latin were summoned to meet their hour of trial, the vigor of the nation as such had long since begun to fail. Perhaps this element of weakness is one which we Americans do not need to consider—at all events, not at present. There are others, however, which do demand our most serious consideration. Important among these are what Professor Gildersleeve<sup>a</sup> has termed “the depressing tendencies of modern civilization, and especially those of American civilization. The aims”, he continues, “of most cultivated people are, when examined, no more exalted than those of their uneducated neighbors. Material well-being in more or less refined forms is more or less consciously the main object.”

These words were written more than thirty years ago. Do I need to enquire whether, since then, the tendencies they describe have shown any disposition to decrease? Setting aside all other factors of deterioration, does the existence of such an ideal of life, does its influence on intellectual growth, on the average point of view regarding the uses and aims of

education, offer much encouragement to the overworked instructor of English? Has he received any notable help from educational nostrums and 'cure-alls'? Like many others, is he beginning to distrust, for instance, our system of acute specialization which continues to multiply indefinitely the number of branches deemed necessary to preparatory training? The answer would appear to be no, at least, if we are to judge by the English we hear about us as well as by the English we read in an astonishingly large proportion of that which is published from day to day—"American briskness of speech," as Professor Cappon<sup>3</sup> describes it. The ability to speak correctly or even clearly, to read aloud as one should, to write a presentable letter, the knowledge of orthography, the bare knowledge of the order of letters in the alphabet, without which one cannot use an ordinary dictionary; what has been happening to these and similar branches of elementary training? And, perhaps, the worst feature of the situation is not simply ignorance alone. It is the astonishing prevalence of an impression that such things as these are really of no consequence. If the much abused boy was the only culprit we might, perhaps, correct such an impression. If the only ones to blame were mature persons whose advantages had been small, we might pardon it. But what shall we say of those many sinners who, though they have had every educational advantage in the land, though some of them actually teach the humanities in our higher institutions of learning, nevertheless speak like ploughmen and write like untrained boys?

The examination of our contemporary literature is hardly less discouraging. It is no exaggeration to say that, with a lamentably small proportion of exceptions, there appears to be no clear idea of the immutable standards of taste and literary art, no knowledge of those great primary laws of criticism by which alone the merits of a literary work may be justly weighed and tested, by which alone a genius may lift himself to that higher level over which runs the only path that can lead him to Olympus. And the worst of it is that perverted style, neglect or ignorance of literary and critical standards is a disease which feeds upon and propagates itself. It cultivates and encourages perverted tastes and unhealthy appetites. The editor of

Harper's<sup>4</sup> claims that the "quintessential virtues of prose" are wholly of to-day. Granting for the sake of argument that this assertion was even in the remotest degree justifiable, we should still be obliged to add that the average man of to-day is not likely to reap the advantage of such prose. It is literally true that almost his sole literary pabulum is the 'latest success' in novels and the less valuable of the current magazines. Both the novel and the magazine are rapidly adopting the aims, the methods and the "American briskness of speech" of his favourite source of amusement and instruction, the Sunday paper. What he learns from such sources is far more likely to be not the quintessential virtues but the quintessential vices of prose.

What, for example, shall we say of an author—of some ability, too, in the construction of a plot—in whose "American briskness of speech" the narrative tenses are regularly usurped by the historical present? Of course his own ear ought to have told him better. If not, five minutes with a competent English or Classical instructor might have informed him that outside of certain definite and narrow limitations the historical present is either a Gallicism or else belongs to a sphere of English in which the favourite examples of its use are 'sez I' and 'sez he'. When such a stylist can count his readers by myriads we may well look with distrust upon the 'latest success'.

But what shall we say when editors, supposedly men of cultivation, put into reading-books for the instruction of our children long selections in which we find again and again the same intolerable vice of style, and that, too, in company with usage which the veriest tyro should have been able to detect at once as clumsy, foreign or simply incorrect?

I do not believe I have magnified what seems to me to be a serious situation. In any case, I know my readers will all agree that it is one which deserves our attention. It is not for me to consider the question of remedies in general. Nevertheless, it should be clearly understood that if we ever make any headway against the tendencies to which I have referred help must come from every possible direction. There is no one remedy, no panacea. It would be folly to claim that the more or less perverted English of a nation will ever be cured by the

Classics alone. The question is, whether the Classics are useful for this purpose. To that question my unqualified answer would be, they are more than useful, they are indispensable. Indeed, I would go farther than that. I would reiterate and maintain with renewed vigour the old thesis that to study them with this end in view is not alone profitable to English, it lays the best possible foundation for a really competent, fruitful and inspiring knowledge of the Classics themselves.

I shall not attempt to consider in detail many excellent reasons for studying the Classics, even in this connection. Moreover, it is unnecessary here to strengthen the old lines of defence. No man who is really educated, certainly no teacher of the humanities, above all, no teacher of the language and literature of any European nation should need to be reminded why the Classics cannot be dispensed with. He knows that we cannot master the present until we have learned the past. He knows that, for us, all roads lead back to Rome and Athens. He would be ignorant indeed if he did not realize that our civilization is their civilization, that the most desperate and determined of radicals could never hope to break asunder the myriad vital filaments which connect our days with those days. Above all, whatever else they may or may not have accomplished, he ought to be aware that, in the conception of language as an art, in the development of language as an instrument of thought, in every thing that pertains to literary form and literary style, the ancients stand supreme. It is here we find the great exemplars of whatever is best in the subsequent literature of Europe. Moreover, the message they convey, the lesson they teach, can come from them alone and will never be outworn. The principles by which the composition of these masterpieces was directed and which the study of them discloses are eternal. And if the history of literature tells us anything, it tells us that no man has ever neglected these laws with impunity. He may possibly gain some temporary popularity by neglecting them, but this particular sort of transgression is one which posterity never forgets and never forgives. It is not alone, then, that the laws of logic and rhetoric which govern and direct the development of language and style are best illustrated by the Classics, but that these are the immutable laws for all time.

But I pass over these and similar relations between the Classics and the higher spheres of English, and will consider the question merely so far as it directly applies to that same average boy whom we all love and who is, really, our hope for the future. I refer to such matters as correct speech, or, at least, an effort to attain it, founded upon respect for language itself as an art, and cultivated by the habit of inquiring into the proper use and the real meaning of words. It may be contended that he can acquire all these things just as well in his English courses. The principal difficulty is that unless a boy is very young he is apt to labour under the impression that he knows English already. Details are dry to him, and it is far from easy to make him realize their importance and give them the requisite amount of attention. No criticism of English courses is implied or intended. I only hope I may live long enough to see them broadened and strengthened at the expense of several other branches which I consider to be of infinitely less importance in preparatory training. I simply contend that no English course, whatever it may be, can find an ally to be compared with the Classics. They are an adjunct for which there is no substitute of anything like the same value.

It may also be said that the language of the average Classical student, despite his supposed advantages, is really no better than that of his class-mate in other lines. Indeed, it has been claimed that in the matter of English composition he is often the inferior. I should be the last to deny that, even setting aside differences in ability or home training, this criticism is, to a certain extent, well founded. There are boys, and boys of some native ability, too, whose acquaintance with the Classics, if we may call it acquaintance, has not improved their practical mastery of English composition. But is this the fault of the Classics? Assuredly not. After making due allowance for those inevitable differences in ability or home-training which I have just mentioned, the fault is not due to the Classics, but to the methods by which the Classics are taught. This point is certainly obvious enough, and it has been referred to time and again. Nevertheless, it would appear that it can not be emphasized too much or too often. Who, for example, would deny, and yet how few, after all, seem to realize clearly that nothing

of educational value can be derived from lifeless, inelegant, inaccurate, slipshod, translation. Not even an adequate idea of the bare subject matter of the Classics is possible under such circumstances, much less, an adequate conception of their spirit and form. What sensible man could expect anything from a few listless, perfunctory exercises in prose-composition? What shall we say, too, of an inaccurate, perverted pronunciation? Is it a matter of no real consequence, as some would have us believe? Or, is a hopeless tangle in the matter of verse one of its boon companions? Such methods of study and instruction as these are, of course, no benefit to English. Moreover, they work incalculable harm to the reputation as well as the efficiency of the Classics themselves as a branch of culture. Worse than both, the natural result of such methods is to engender or encourage habits of mind which must surely react unfavourably upon the victim's entire career. There can be no doubt that, whether we happen to be considering the Classics, or, for that matter, any other study, whatever it may be, the worst blow that can be given to the claims of education, the most deadly thrust that can be aimed at the value and efficiency of education itself, comes now, as it always has come, from partial, inaccurate, careless, ill-considered, methods of instruction.

Who is to blame for this? I believe that I have the right to know something of the host of difficulties and discouragements by which a teacher is confronted. At all events, I have had nearly fifteen years of experience—quite enough to bring home the fact that a teacher's troubles are not confined to the world without. They loom large in the world within himself. When, therefore, it becomes necessary to fix the blame for the situation to which I have alluded it is we, after all, who must reply, *Nos consules desumus*. We are the guardians of the shrine, we are the interpreters of the higher life. *Ne quid detrimenti* is our commission and we may not evade our trust nor shift our responsibility.

Let us consider the value of this principle as applied, for instance, to the question of Latin pronunciation, more especially to the question of long and short vowels. I am sure no one's feelings will be hurt if I venture to state my belief that with a very few brilliant exceptions—'may they live long and

prosper'!—we are all sinners in this respect, and, as such, the legitimate product of the more or less lax training which has prevailed ever since the time of Erasmus. I, myself, was trained in a New England public school under the personal supervision of one of the best and most inspiring preparatory teachers of his time—a man who had had more than fifty years of experience. The Latin forms were graven upon my heart in letters of fire. When it became necessary to 'scan and prove' the hexameters of Vergil, the rules of prosody were administered to me in the same determined fashion. But not until afterwards did it penetrate my consciousness that these rules actually affected the pronunciation of vowels, even in poetry, much less in prose. The reticence of the teacher as well as the obtuseness of the pupil in this case were certainly encouraged by the fact that the pernicious English pronunciation is only partially capable of bringing out the value of vowel sounds.

Now, of course, the proper pronunciation of Latin is a vital question. It is just as vital as the proper pronunciation of French or Italian or of any other modern language, and for the same reason, although, in the case of the modern languages, even the dullest are reminded of it whenever they talk with a native and fail to make themselves understood. The importance of pronunciation is shown by the fact that the improvement in the study of Latin from this point of view has, in the last twenty years, brought to light at least one most important aspect of artistic prose which had been practically forgotten since the time of the Humanists. I refer to the use of rhythm and the laws by which it was governed, more especially at the close of the oratorical period.<sup>6</sup>

But, after all, the importance of correct pronunciation does not need to be supported by an enumeration of its advantages. A teacher's position with regard to it is governed by one of the simplest rules of life. There is a right way and a wrong way. If a man knows which is which, and acts at all, there is only one logical, in the long run, there is only one safe and profitable choice for him to make.

It is true, of course, that the exact quality of Latin accent is still a debatable question, though far less debatable than it once was. It is also true that the quantity of some

vowels is not determined, that the quantity of some others undergoes revision from time to time, that the pronunciation of some consonants is not certain. Professor Lindsay<sup>1</sup>, for instance, has just cited further proofs to show that *gn* (as in *ignominia*) was probably pronounced somewhat as the same combination is pronounced in modern Italian. Everyone is aware of the fact that we have not yet solved all the problems of Latin pronunciation. It is possible that a few of them never will be settled beyond dispute. Surely, however, this is no reason for deploring the fact that we ever tried to teach the proper pronunciation of the language at all. Nevertheless, this very reason has just been urged by a well known Classical scholar. In reply, I content myself with observing that if imperfect knowledge of the subject is a sufficient reason for deploring the study of Latin pronunciation, we must deplore the acquisition of all learning which is progressive, in other words, of all learning worthy of the name. If we listened to such an argument, what, pray, would become of history, of astronomy, of chemistry, of physics, of biology, of geology, of all those branches of learning in which the theories of yesterday are continually revised, if not utterly demolished, by the discoveries of to-day?

A second objection put forward by the same scholar is to the effect that anything like a perfect command in practice is impossible. I thoroughly understand his feelings and I sympathize with them. But we must not allow temporary discouragement, heart-breaking as it sometimes is, to obscure our vision. I know he would never have made this objection if he had paused to observe that it was really tantamount to saying, if we can not realize our ideals we had better give them up. It is better never to follow the right path at all than to follow it and yet fall short of the ultimate goal. If his objection is valid we might as well resign our efforts to acquire the correct pronunciation of our own language, we might as well give up trying to lead a Christian life, in short, we might as well forsake everything which human frailty has looked up to and striven to attain.

Not many years ago another well-known Classical scholar—one, too, who has made an unusually careful study of the



subject—stated, in substance, his conviction that the correct pronunciation of Latin is so difficult to acquire that it might as well be given up. It is true that his idea of correct pronunciation is affected by a theory of Latin accent not generally accepted in philological circles. But this in no way alters the fact that if we followed such a principle to its logical consequence, our lives would yield us very little worth having. Effort is in the very essence of education. And to what are we led by such counsels of retreat and surrender? Moreover, is the pronunciation of Latin as difficult as his statement would lead us to suppose? It is not likely that he would advise us to neglect the native pronunciation of French or German or Italian for any such reason. We all know, however, that a foreigner without an accent to betray him is indeed a *rara avis*. Some seem unable in practice to reproduce the sounds of a foreign tongue. The majority, however, can come reasonably near it, but I should not expect a close approximation from one who studied a language, let us say, for seven years and neglected the pronunciation of it for the first six. The pronunciation of any foreign language is governed by rules, and it saves time to learn these rules. We all know, however, that in the long run it is really learned by listening to correct models until the ear itself becomes a competent guide, and by imitating them until one's tongue, as it were, may be trusted to reproduce them automatically. Have we any reason to suppose that Latin is an exception to this rule? Does any one suppose that the pronunciation of French or German could be acquired by methods which are only too prevalent in the teaching of Latin? How, then, can we say that the pronunciation of it is so difficult that it might as well be given up? On the contrary, have we not the best reasons for asserting that if a boy of intelligence and tolerable industry begins with a competent teacher and continues to have a competent teacher, the proper pronunciation of Latin, so far from being insurmountable, will naturally assume its proper place in his knowledge of the language?"

The responsibility, therefore, for Latin pronunciation rests entirely with the teacher. The forgetfulness of this point, or the failure to see it, which is indicated by the opinions I have quoted, is more serious than might appear at first sight. In-

deed it is full of peril for the whole subject of the Classics. I happen to know that both of the men whom I mentioned have always been unusually thorough and conscientious in practice. They are teachers of deserved reputation. I must believe, therefore, that they do not realize how joyously their precepts will be entertained by the semi-prepared and weak-kneed brethren, how soon similar views regarding other lines of intellectual effort will be encouraged to appear. Under any circumstances the path of achievement is toilsome enough. But we shall never find that path at all if we give ear to the Siren song which would lure us aside with the comfortable doctrine that this thing or that thing is so difficult that it might as well be given up. Educational problems, to say nothing of other problems, are not solved by resignation or compromise. They are solved, if they are solved at all, by thorough and competent teaching, not at one stage alone of a student's career, but all along the line from the A B C to the Ph.D., from the Primary School to the University<sup>9</sup>. This is especially true of two aspects of Classical training which have a most important bearing upon the subject of this paper. These are translation and its companion piece, its application and proof, prose-composition. The man who has really mastered these two things has laid a foundation which is indispensable to genuine and fruitful scholarship in the Classics themselves. But this is not all. He has, at the same time, acquired a knowledge, an appreciation of his own language such as no other training can give.

It goes without saying that the kind of translation which will produce these beneficent results is not the slipshod type. We all know that this is deadly. Nor can we endure the so-called 'literal' translation which appears so frequently in our matriculation examinations. If this caricature of both languages is taught, as it usually is taught, in good faith, it shows either a distrust of the examiner's scholarship or else a lamentable ignorance of the first principles of translation. Not less pernicious, indeed, more pernicious because it comes to so many in the guise of a virtue, is paraphrase, the besetting sin of our commentators. This vice shows a peculiar aptitude for ensnaring the ready-tongued but easy-

going, and should never be allowed to stand for translation. That the Classics lose much and English gains nothing by this treatment is the least we can say against it.

But, of course, it is much easier to point out the faults than it is to define the virtues of translation. It is quite as important, however, to know what we should cultivate as to know what we must avoid. The ideal translation, I take it, is the perfect mirror of its original. It is a version which in content, form and style produces the same effect upon the English reader that the original produced upon the native reader. No such translation will ever be seen in this sub-lunary sphere. Nevertheless, this and no other must be our standard, the goal of our efforts. "‘Nothing imperfect is the measure of anything,’ says the prince of idealists."<sup>10</sup>

Everyone acknowledges that a translation must, of course, be idiomatic. But the veriest tyro soon discovers that idiom is not a matter of words and phrases alone. To cite one obvious and familiar example, he learns, almost at the threshold of prose-composition, that in a Latin sentence the grouping of ideas follows another principle, that the transitions between sentence and sentence are more clearly marked, that a Latin paragraph is, so to speak, more closely knit than is natural to idiomatic English. The distinction is, of course, elementary enough. Nevertheless, it illustrates the value of careful translation and thorough prose-composition, for without a knowledge of it English ears would entirely miss, for instance, the point of Caligula's famous observation that the style of Seneca was *harena sine calce*.

Stylistically, too, as well as in content and ideas, a translation should reflect its original, and this really means the vices of the original quite as much as its virtues. From this point of view the Authorized Version enjoys the rare distinction of being so much better than the original, better, at all events, than the original Greek, that it is really not a good translation. The original Greek should have been something approaching the standard and the style of Herodotus. So, too, to cite another example, Ridley's version of Lucan is pleasant reading and an excellent book in itself. But I get little idea from it of the frenzied rhetoric, the feverish unrest, the intense exag-

generation of the Neronian age, all of which one feels so forcibly in every line of the original poem. On the other hand, the salient features of the greatness of Euripides are successfully concealed in the correct and conventional verses of Robert Potter. It is Arthur Way who, for the first time, has really brought home to an English reader some idea of the variety, the flexibility, the passionate fervour, the intense human sympathy of the last of the great tragic poets of Hellas. In a few rare instances Time, himself, takes a hand in the improvement of a translation. The touch of antique naïveté in Herodotus is admirably mirrored for readers of French in the version of Amyot. But that which in the original was due to conscious art is due in the translation not to Amyot himself but to three centuries of growth in the French language.

It is not for me, however, to discuss at length the merits and demerits of translation in this connection, although it is obvious that every teacher is bound to make himself acquainted with all the points of a good translation. He will learn something from the numerous essays on this subject, something more from perusing such Classics of translation as *Monro's Lucretius*, *Jebb's Sophocles*, *Way's Euripides*, *Butcher and Lang's Homer*, *Conington's* prose version of *Virgil*. The translation or imitation of one great poet or prose writer by another is always instructive. Our literature has been enriched in this way by many a golden phrase or felicitous turn.<sup>11</sup> These and similar matters are all useful helps in the exercise and improvement of one's ability to translate.

It goes without saying, that having made himself well acquainted in theory and by practice with all the points of a good translation a teacher's only hope of impressing them upon his students is to be tireless in bringing them home in every way and from every point of view. His ideal of attainment must never be lowered, he must demand its realization within the limits of possibility from those whom he instructs. Nor should he forget himself. Precept is illuminated by example, suggestion by illustration. Moreover, we must have this sort of a teacher and this sort of teaching from the beginning to the end of a student's career. I know that such teachers are not easily found. It seems to be the prevailing

impression that anybody can teach, and the natural consequence is that, little as they get, a great many teachers are over-paid. Only a few realize that great teachers are almost as rare as great scholars, still fewer learn that great scholars are as rare as great literary men. Nevertheless, it is certain that our teachers and our teaching can be improved. It follows, therefore, that improvement is obligatory. Many despair, under existing conditions and in our present surroundings, of producing students who combine a tolerable pronunciation with some real and inspiring mastery of translation and prose-composition. Surely, I am the last one not to sympathize with a feeling which has darkened many a day of my own experience. The way of the teacher is hard. But, in teaching as in other things, the way of the transgressor is harder. Let us take courage then. These things have been done again and again. Therefore, they can be done. As to ways and means much has been said which must appeal to everyone. Other views have been promulgated, and these are often very much in evidence, about which a reasonable difference of opinion may be allowed. In the long run, however, every man has to work out these problems for himself, and it is best that he should. I can not refrain, however, from mentioning one detail in the way of method, not because it is new, but because it is not as generally adopted as it might be, and because my own experience has shown its efficacy and usefulness.

The most sanguine of idealists would be forced to admit that, even under the most favourable conditions, mere oral translation in the class-room has its limitations. Indeed, I believe that not a few of our troubles can be traced to the fact that we have allowed it to assume a greater burden than it can bear. If a student is allowed to translate unchecked, we might as well drop the subjects of Latin and Greek from our curriculum. If he is corrected only up to a certain point, the worst vices of translation grow apace, the real object of the work is defeated. If we correct him beyond that point, many of us run the danger of killing his interest in the subject. We take up so much time with details that we sacrifice two very important things. These are the continuity of the subject and the mastery of enough text to give the student anything like an adequate

and inspiring knowledge of the author. On that account an adjunct to the oral translation of the class-room, which, for my own part, I can not recommend too highly, is to require students to hand in at regular intervals a written translation of some given passage which should then be thoroughly criticized and discussed. I am only too well aware that this is not a time-saving device. But I am not dealing here with time-saving devices. No one who has ever tried this exercise of written translation upon himself needs to be convinced of its value to every grade of scholarship from the youngest of students to the most learned of learned Thebans. I wish our teachers did more of it. Indeed, among the many good points made by Professor Rolfe in his recent article<sup>1,2</sup> should be reckoned his observation, with which I most heartily agree, that "If every editor of a Latin author would begin by writing a careful translation of him, we should, perhaps, have fewer textbooks, but in those which we had the real difficulties would less frequently be passed over, in favor of superfluous and quasi-learned notes."

If this exercise of written translation is conscientiously done under the influence of wise guidance and the spur of suggestive and inspiring criticism, it will not only force a student to examine, consider and weigh every resource of the English language at his command, but, better still, it will force him to extend that knowledge with all possible rapidity. It constantly calls his attention to the real meaning of words, it makes him strive for accuracy and propriety in the expression of ideas, it leads him to consider correct idiomatic usage, to weigh and analyze the elements of style, the proprieties and improprieties of syntax, the rules of emphasis as dictated by the arrangement of words in a sentence, the sphere and limitations of figurative usage and what-not. In short, he is obliged to examine, more or less thoroughly, according to his lights, every department of his own language, and that, too, in constant juxtaposition with an exemplar which is not only a model in itself, but has also had the closest and most manifold relations with the artistic development of his own tongue.

"Translation", says James Russell Lowell<sup>1,2</sup>—he is not thinking of ordinary oral translation—"compels us to such a

choosing and testing, to so nice a discrimination of sound, propriety, position and shade of meaning, that we now first learn the secret of the words we have been using or misusing all our lives, and are gradually made aware that to set forth even the plainest matter as it should be set forth is not only a very difficult thing, calling for thought and practice, but an affair of conscience as well. Translating teaches us as nothing else can, not only that there is a best way, but that it is the only way. Those who have tried it know too well how easy it is to grasp the verbal meaning of a sentence or of a word. That is the bird in the hand. The real meaning, the soul of it, that which makes it literature and not jargon, that is the bird in the bush which tantalizes and stimulates with the vanishing glimpses we catch of it as it flits from one to another lurking place. It was these sly allurements and provocations of Omar Khayyam's Persian which led Fitzgerald to many a peerless phrase and made an original poet of him in the very act of translation."

The first Lord Thring was fond of asserting that his elevation to the peerage was due to his knowledge of Greek. He meant that the immediate cause of his title, his incomparable skill as a parliamentary draughtsman, was really due to his schoolboy days at Shrewsbury, when he was regularly required to write translations of Thucydides, the great master of terse, concise expression, under the direction of Dr. Kennedy.

The indispensable complement of this exercise of translation is prose-composition. When taught in the same thorough way, it is, for the same reasons, quite as important and valuable a training in both languages. Moreover, when properly taught and in company with the sort of translation I have described, prose-composition loses much of its traditional tedium for intelligent students.

No amount of training can make a boy creative unless the power of creation is in him. Nevertheless, when it becomes a question of translation and prose-composition, it is by the sort I have been trying to describe, and only by that sort that a boy's mind is ripened and trained to receive and interpret the message of the Classics, to realize and appreciate some part of their beauty and power, and to apply the lessons they have

taught him to the use and development of his own tongue.

It is undeniable that real training in the resources of language is far more successful than many have imagined in arousing a genuine interest in the subject. It engenders respect for language itself as an art. Meanwhile, the student has, necessarily, gained some knowledge through actual practice and at first hand of those laws by which the cultivation of language as an art must proceed.

Respect for language as an art, practical knowledge of the laws by which the cultivation of a language as an art must proceed ; these certainly are our most efficient weapons against the deterioration of contemporary speech, against the stylistic degeneration of contemporary literature. These weapons are forged and put in our hands, now as they always have been, by the Classics. But, again, I repeat it, if the Classics are to fulfil this object, they must be well-taught, indeed, they must be well-taught if they are heard at all in the roar and bustle of this materialistic age, if they are to save themselves from being knocked down and trampled into insensibility by that pushing, elbowing throng of rival interests which absorb our modern life.

What I have said in the preceding pages shows that, in common with many others, I feel that the integrity, the idiomatic flavour and power of our vernacular is in serious danger of permanent injury. I have failed, however, to make myself understood if I have given the impression that I consider the situation hopeless. On the contrary, I am the last one to despair of the State. Teachers have no right to despair. Indeed, in this country they have no real reason for despairing, No one who really knows the North Americans has failed to be impressed with their immense reserve-force, their amazing versatility and power of adaptation. It is eminently characteristic of them, as was noted by the recent Moseley Commission, that, one and all, they take a keen interest in everything pertaining to education. All the Americans I have ever met have opinions on the subject, and it is rare to find one who is not ready and willing to discuss them. Their own enthusiasm for education sometimes leads them astray. This is partly due to the fact that their characteristic admiration of a positive



is such that they not infrequently labour under the delusion that, because a man has positive views, he must, necessarily, know what he is talking about. Now, of all positive people, one of the most positive is the person who is pushing some new educational fad. It is partly for this reason, perhaps, that we Americans have allowed so many educational heresies to be foisted upon our defenceless children. And the worst of it is that the penalty for educational mistakes is paid by the next generation.

But we are really willing, nay, anxious to learn. I doubt whether there is a country on earth where a really first-rate teacher will find so many bright faces in his class-room, so many intelligent, responsive minds eager to receive what he can impart and quick to understand and apply it. But whatever else a boy may be, I have yet to meet one who was either blind to class-room shams or tolerant of them. And if he knows that he is being improperly taught, he rarely fails to resent it.

It is for us, therefore, who are teachers, to recognize our responsibility and to improve our methods by every means within our power. The field is ours, the opportunity is still within our grasp. But fields are not defended by ill-trained, 'indifferent soldiers, opportunities can not be held by nerveless hands.

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#### NOTES.

<sup>1</sup> With the exception of some slight changes dictated by further reflection, this article is the address I gave before the Classical Conference of the Association of Colleges and Preparatory Schools of the Middle States and Maryland which met at Princeton University, November 26, 1904. I had just finished the first draft of it when Professor Cappon's excellent and timely article (*Queen's Quarterly*, vol. xii., pp. 190-206,) came to my notice. When, therefore, I received a short time ago the courteous invitation of the editors to contribute my own comparatively slight performance to the same journal, my first thought was that it ought to be entirely recast before being submitted to a larger public. On the other hand, however, though the address was directed to a small body of professional associates, it was, nevertheless, dictated by a condition of things in the United States which, it seems to me, demands the attention of every man upon the continent who, counting English as his vernacular, believes that the strength and purity of it should be preserved. For that reason I determined to submit the address, practically, in its original form.

<sup>2</sup> Essays and Studies, Baltimore, 1890, p. 16.

<sup>3</sup> Queen's Quarterly, xii, p. 198.

<sup>4</sup> Quoted from Professor Cappon's article, p. 198.

<sup>6</sup> Compare the recent study by Professor Th. Zielinski, of St. Petersburg, *Das Clauselgesetz in Ciceros Reden. Grundzuege einer oratorischen Rhythmik*, Leipzig, Weicher, 1904. I have attempted to give some idea of the contents and significance of this important contribution in the *American Journal of Philology*, xxv, p. 458, ff.

<sup>7</sup> *Classical Review*, xviii, p. 402.

<sup>8</sup> See Gildersleeve, l.c. p. 9.

<sup>9</sup> "What we want is not less Latin and Greek, but less waste of time in learning, or pretending to learn, Latin and Greek. We want better methods, we want better teachers. We want teachers who have a living and breathing knowledge of the language which they profess to teach: a knowledge which the learner can bathe in as well as drink." Gildersleeve, l.c. p. 6.

<sup>10</sup> ἀτελές γὰρ οὐδὲν οὐδενὸς μέτρον, Plato, Rep. vi, 504 C. See Gildersleeve, l.c. p. 508.

<sup>11</sup> Compare, for example, the interesting study by W. P. Mustard, *Classical Echoes in Tennyson*. The Macmillan Company, New York, 1904.

<sup>12</sup> The New York Latin Leaflet, Jan. 30, 1905, p. 1.

<sup>13</sup> *Latest Literary Essays and Addresses*, Houghton and Mifflin, New York, 1892, p. 140.

## A CRITICAL STUDY OF THE CASE OF LOUIS RIEL.

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**N**EARLY twenty years have passed since Louis Riel was executed for high treason, but even to-day one occasionally hears the dying mutterings of the political thunder-storm which raged during and immediately after the last North-West rebellion. Men still speak bitterly of the wickedness of the arch conspirator Riel ; few take the trouble to calmly study a character who, theoretically at least, should have been an impossibility at as late a period as 1885.

However, the conditions were unique ; the Metis, ignorant, superstitious, and suffering from inexcusable wrongs, were the inflammable material ready to be fired by the fanaticism of Riel, whose mental disease was fanned to white heat by the position in which he found himself thrust ; in all fairness, it must be said, unwillingly. It was not possible at the time of his trial to find many men who could think calmly and act judicially ; in fact, opinions for and against the agitator were largely based on party exigency. One or two medical men bravely stood by their guns in the midst of a torrent of abuse, but their opinions were treated with contempt in Canada, although such eminent alienists as Drs. Urquhart and Ireland, of Great Britain, as well as the majority of the members of the American Medico-Psychological Association were united in their opinion that Riel was insane. At such periods of excitement it is almost impossible to obtain calm judgments from even a minority of the people, and a small proportion of trained alienists are apt to be swayed by the popular frenzy.

That such is the truth is easily illustrated by a brief comparison of the Guiteau and Riel cases. No alienist outside of the United States, who had even a trivial acquaintance with the manifestations of mental disease, ever conceived the idea that

Guiteau was anything but a well developed case of paranoia, and yet in the intense excitement following the shooting of President Garfield the sanity of Guiteau was vouched for by men whose opinions carried great weight.

The Riel case was much more complex, and Riel of such a type, that those not familiar with insanity might easily be excused for jumping at opinions consistent with popular ideas of what constitutes mental disease. This point will be discussed later on, and an attempt made to show how simple a matter it was to arrive at erroneous conclusions. While Riel could not say that a prophet was without at least a modicum of honour in his own country, Drs. Clark (of Toronto) and Roy (of Quebec) had reason to know the truth of the old proverb. Even then, though, there must have been a vague suspicion that there was something in their contention, judging by the promptness with which a post mortem on the rebel was refused.

My belief is, that when the mental condition of such an agitator as Riel is to be ascertained, it would be best to go to another country for expert opinions. If such a rule had been followed both in the Guiteau and Riel cases, judicial murders would have been avoided.

At the time Dr. Ireland was penning his well known article on the subject of Riel, I went into the history of the case pretty thoroughly for him, and, must I confess it, revised some pronounced views which had been acquired from reading biassed and utterly unsatisfactory press reports. When I learned some of the pathetic inside history of the trial, and balanced the incidents in the same scale that we must daily apply in the weighing of judgments regarding the insane, it was not difficult to arrive at what is surely a correct opinion, in the Riel case. Alienists are only too familiar with the habit of a general public, which is quite willing to accept our diagnosis in the every day cases which come before our notice, and to reject it the moment a criminal is the subject of examination.

Louis Riel was born in Manitoba October 23rd, 1844. His father, whose name was also Louis, was the son of Jean Baptiste Riel, who was a French Canadian from Berthier. His mother, that is the grandmother of the subject of this sketch, was a Franco-Montagnais Metis, so that the amount of Indian blood

in his veins was comparatively small. Louis Riel, Sr., was a restless spirit, who in 1838 entered the service of the Hudson Bay Co., and left Lower Canada, where he had been attending school, for the North-West. In a very few years he attained to the position of one of the most important and progressive settlers in Red River, and in 1849 led a revolt against the trading methods of the Hudson Bay Co., which rode rough shod over the desire of the settlers to sell furs to traders other than those connected with this huge monopoly. One of the Metis was arrested and put in gaol for having furs, which were evidently for sale, in his possession ; Riel by means of his eloquence and tact organized a band of followers, broke open the Fort Garry court house, and forced the judges to release the prisoner and restore the furs. This incident was an important one as far as the breaking down of the monopoly of the Hudson Bay Co. was concerned, and we can now see that Riel came by his revolutionary instincts quite naturally.

We shall leave the father and trace briefly the history of Louis Riel, Jr. The lad early showed evidence of ability, was of pleasing presence, and by some was called unusually precocious. Although his father was anxious to give him a good education, his resources would not allow him to do this, but Archbishop Tachè having been attracted by the personality of the youth, interested a Madame Masson, of Terrebonne, in his career, and she had him brought east to receive a liberal education in Montreal. He was not popular with his school mates, being shy and reserved, but made excellent progress, and in due time left the college at Montreal and became a freighter in the North-West. While at college he kept up a regular correspondence with Archbishop Tachè, and even at this early age showed evidence of the mental unbalance which characterized the remainder of his life. He already had conceived the idea that he was the central figure in a religious movement which was to astonish the world. This idea was continually brought forward in his letters. Archbishop Tache realized during the five years of the lad's college life, that he was totally unfit to become a priest, as was originally intended. His delusions were marked, and his whole correspondence made evident the erratic nature of the boy's disposition. During this period, too,

he did some astounding things. For example, he entered the house of a wealthy citizen of Montreal and demanded \$10,000 with which he intended to carry on his crusade; he induced his feeble-minded old mother to sell her effects to enable him to put his plans in force. Of course the request for \$10,000 was immediately refused, but the poor old mother did as he ordered, and set out on a tiresome journey of four hundred miles in a Manitoba cart. It took three weeks to accomplish the journey, and when she reached the end of it, no son appeared. A letter explained that Riel must remain in Montreal to launch another important mission. This was in 1867, the year in which he returned to Manitoba. For some time, little was known of him, although he acquired the reputation of being unstable and shiftless; at any rate nothing was heard of his important missions, etc. In 1869 the transfer of the lands of the Hudson Bay Co. to the Dominion Government was being made, and the badly bungled affairs of this transaction, with the complete indifference shown to the undoubted rights of the Metis, fired the imagination of the ill-balanced youth, who had been brought up to firmly believe in the soulless character of the Hudson Bay Co.

This is not the place to discuss the want of foresight, or perhaps of ignorance, shown by the people in high places, but when one goes back to the British Parliamentary Report on the Hudson Bay affairs in 1857, it is not difficult to understand the absolute want of knowledge which existed. Read that report and the evidence given by those interested in keeping facts in the background, and then can one marvel at the ignorance displayed by the Federal authorities.

Riel saw in the discontent of the poor Metis the opportunity to develop his revolutionary instincts, and the superstitious half-breeds, impressed by his religious fervour, regarded him as a veritable saviour. The story of the ill-advised and half-witted rebellion, culminating in the death of Scott, has often been told, and yet the rebellion was not without good results, just as the rebellion of 1837, headed by the firebrand agitator Mackenzie, was incidentally the means of bringing results, which would have come constitutionally in due course.

Riel fled to the United States upon the collapse of his Castle of Folly, but his compatriots invested him with a glory which was to produce unutterable woe for many.

The Government evidently realized Riel's power to make mischief, and \$4,000 was sent to him through a Bishop's hands, ostensibly as a compensation for the loss of property. He did not remain long in exile, for in 1870 we find him organizing a company of volunteers to resist a threatened Fenian attack, and Lieutenant-Governor Archibald seems to have been aware of his presence, as he inspected the company. In 1873 he was nominated for Provencher for the House of Commons, but retired in favour of Sir George Cartier, who was elected, but died soon afterwards. Riel was returned for Provencher in the election of 1874, and actually signed the roll in Ottawa. He was expelled from Parliament by a vote of 124 to 68, but was again elected, but did not, as far as I can learn, make further attempt to face the personal violence which was threatened, should he appear in Ottawa. Ireland says: "In 1874 Lepine was tried before the Queen's Bench of Manitoba for the murder of Scott, and sentenced to death. This was commuted to two years' imprisonment, and finally to five years' banishment. The same sentence of five years' banishment and life-long forfeiture of political rights was passed on Louis Riel."

We know little of him until 1876, although it is said on good authority that he lived a quiet and inoffensive life in the United States.

In 1876 he made his appearance in Montreal, and during mass, on one occasion, made noisy interruption, declaring that he should be permitted to conduct the service, as he was superior to any of the dignitaries present. He was arrested, and an examination into his mental condition made, with the result that he was committed to Longue Point asylum on the certificates of two medical men, and was shortly afterwards transferred to Beauport, below Quebec, as being a dangerous lunatic, under the name of La Rochelle. He was discharged on Jan. 21st, 1878, after a residence of nineteen months. Dr. Roy, Medical Superintendent of Beauport, describes him in his evidence, as suffering from Megalomania, what we now call Paranoia. When conversing on every day matters he might

talk reasonably, but became irritable when contradicted about his delusions. On several occasions he was so violent that restraint was used. He had a fixed delusion, that he had from heaven, a mission to fulfil in the North-West.

To quote his own words, "some persons", he said, "had known beforehand my supernatural power, but I only knew it myself on the 18th of Dec., 1874. The last Archbishop of Montreal, Monseigneur Bourget, was the first to inform me of this favour of the Saviour. This learned prelate wrote to me, and I have his letter still in my possession, that I had a mission to fulfil. At first I was inclined to doubt it, but later on I recognized my error.

On the 18th of Dec., 1874, while I was seated on the top of a mountain near Washington, in Dakota, the same spirit who showed himself to Moses in the midst of fire and cloud appeared to me in the same manner. I was stupefied, I was confused; he said to me; 'Rise up, Louis David Riel, you have a mission to fulfil. Stretching out my arms and bending my head, I received this heavenly messenger. I have worked for men, and with what success the world already knows. Events are not finished in a few days or a few hours. A century is but a spoke in the wheel of eternity. I have obtained practical results, but much more still remains to do.'

While in Washington his insanity again made itself manifest, and he was arrested, but shortly afterwards liberated to return to his family. Little is known of his life for some years, although he appears to have lived quietly, when in June, 1884, a committee of malcontents from the half-breeds in the North-West visited him and asked him to return with them to renew the struggle for their rights. In the report of the delegates sent to invite Riel, the following clause appears: "We have travelled the long journey of about seven hundred miles to seek an interview with Mr. Riel. We had to go to the Territory of Montana, as far as St. Peter's Mission, at the foot of the Great Rockies.

We found him humbly and respectably employed as a teacher in the Industrial College of the Jesuit Father of that place. After having acquainted him with the object of our mission, we handed him our credentials and the six resolutions



in which we had to consult with him, also the document whereby our public invites him to the North-West. We asked him to come with us, if he could, to aid us. This interview took place on the 4th of June. Mr. Riel read our papers of trust and begged to be allowed twenty-four hours to think the matter over, before giving an answer.

We were received by Mr. and Mrs. Riel in a very friendly manner, their courtesy was sincere, simple and true. Generally when one enters the house of a very poor man the feeling of the visitor is more or less painful, but entering Mr. Riel's house our impression was different. The humble condition of his home reminded us of the opportunities he had for several years to become rich, and even to make exceptional fortune, and how at all risks he stood firm by the confidence of his people. We know how much he wrought for Manitoba and how much he struggled for the whole North-West, and seeing how little he worked for himself, we came back after a long trip of fourteen hundred miles with twice as much confidence in him as we had on leaving to go and seek him in a foreign land."

After a time he was persuaded and promised to go in September. Urged by Father Andr   to come quickly, he arrived in Saskatchewan 1st July, 1884.

At first Riel kept his head wonderfully well, urged moderate measures of a constitutional character, and made many friends, even among the English-speaking settlers.

A Bill of Rights was drawn up, as suggested by Riel, and forwarded to Ottawa, where apparently it was promptly pigeon-holed.

The want of attention shown by the Ottawa authorities caused more and more discontent, and by December, 1884, the half-breeds were on the verge of rebellion, and Riel developing all the marked evidences of an unbalanced mind. He prayed night and day and worked up the feelings of his ignorant followers to the danger point. As Dr. Daniel Clark says: "He now defied not only the mounted police but also the Roman hierarchy. He drove priests from their altars and chapels, and desecrated them for common purposes. He was a supreme pontiff himself and could make and unmake popedoms. In

one of his paroxysms of fury against the priests, who would not second his efforts, he drove them from the chapel and assumed in their stead sacerdotal functions. He baptized a number of children, confessed and gave absolution to more than forty persons, held confirmation at the altar and in public, and in order to transmit to the congregation the breath of the Holy Spirit uttered three cries so long and penetrating that they caused the windows of the building to vibrate."

Sir John Macdonald stated in Parliament that Riel offered to leave the country for a sum of money. No doubt this is quite true and not at all inconsistent with his form of mental trouble; what he would have done if the money had been given, is another question. To Charles Nolin he said he would go to the United States if he received the money and start a paper, and raise the other nationalities in the States. He said "before the grass is that high in this country you will see foreign armies here." "I will commence by destroying Manitoba, and then I will come and destroy the North-West and take possession of it." Nolin stated in his evidence at Riel's trial, that Riel said he had inspirations which worked through every part of his body. He showed him a book written in buffalo blood, regarding the division of Canada after England and Canada had been destroyed.

Quebec was to be given to the Prussians, Ontario to the Irish, and the North-West Territory to be divided among European nations. The Jews were also remembered. At the skirmish of Duck Lake Riel behaved insanely by running about with a crucifix, a foot and a half high, which he had carried from a neighbouring church.

Vital Fourmond, an Oblat Father, gave very strong evidence regarding Riel's mental condition and clearly described the change which took place during the development of the rebellion. There was no doubt among the priests regarding Riel's insanity, and they keenly realized what a firebrand they had to deal with. To Father Fourmond he expounded some of his ideas as follows:

"The Very God was God the Father and that God the Son was not God; the Holy Ghøst was not God either. The second person of the Trinity was not God, and, as a conse-

quence of this, the Virgin Mary was not the Mother of God, but the Mother of the Son of God."

As to his political ideas, he wanted first to go to Winnipeg and Lower Canada and the United States, and even to France, and he said "We will take your country even ; and then he was to go to Italy to overthrow the Pope, and then he would choose another pope of his own making."

Father Andr , who knew Riel well, regarded him as completely insane on politics and religion, and at a meeting of the priests it was decided not to allow him to continue his religious duties, as he was not responsible.

All documents signed during the rebellion, with one exception, had the signature Louis David Riel, Exovede.

He expressed the idea that he was a second Saviour, sent in the latter days to succour Jews and Gentiles from bondage. In 1876 he signed himself Louis David Riel, by the grace of Jesus Christ, Prophet, Pontiff, Infallible, and Priest King. In a postscript he gives a reason for adding "David" to his name. It was on account of the King of Israel having been chosen by him as his patron saint, and who had delivered him out of the hands of his enemies.

The Spirit which spoke to Moses out of the burning bush had often spoken to him. Why ? Because he was about to liberate his brethren in somewhat the same way out of their bondage. On the Sunday before his execution he had hallucinations of sight and hearing ; he had daily conversations with the Almighty. His writings were full of his visions, but grandiose ideas were ever present.

He always signed his military orders and documents Louis David Riel, Exovede, his written explanation of this being, " Exovede from two Latin words, Ex which means, from, and " ovede, flock. That word I made use of to convey that I was " assuming no authority at all. And the advisers of the move- " ment took also that title, instead of councillors or representa- " tives ; and their purpose for doing so was exactly the same " as mine, no assumption of authority. We considered our- " selves a part of society, and near us another part of the same " society attempting to rule over us improperly, and by false " representations, and through mismanagement of public

" affairs were injuring us greatly, at the same time they were  
" obtaining the ear of the Government. They were turning all  
" the press against us. The situation was leading us simply  
" to annihilation, etc.".....

The history of the unfortunate rebellion in 1885 has been treated at much length in our press and histories, but rarely indeed has the truth been fully presented. As a matter of fact, when the plunge had been taken by the misguided rebels, Riel was so insane, that as a leader he was of little or no account, while the real work of opposition was carried on by Dumont and his associates. Dr. Daniel Clark says : "I spoke to some of the half-breeds who were in all the engagements with Riel, and they uniformly said he was not the same man after the first fight. He seemed to have changed entirely and became frenzied. He organized no opposition after this time, did no fighting, but was looked on as inspired by his deluded followers, and ran about from pit to pit holding aloft a crucifix and calling on the Trinity for aid."

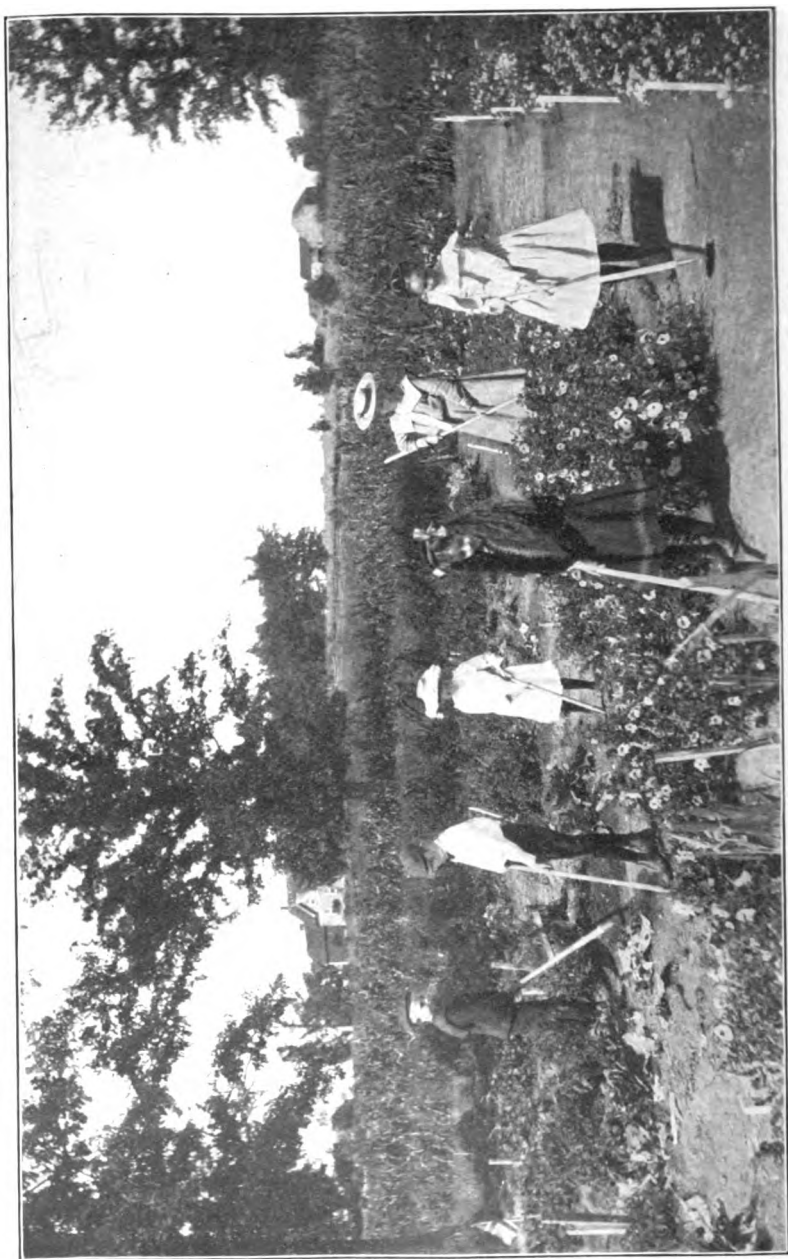
After the collapse of the rebellion Riel was easily captured, and his trial for treason took place at Regina on July 20th, 1885, before Mr. Hugh Richardson, a stipendary magistrate, and a petit jury, composed of six persons, selected by the magistrate who tried the case. It goes without saying, neither French Canadians nor half-breeds were members of that jury. Looking back it is a simple matter to see that it mattered little how or where the unfortunate Riel was tried ; his fate was sealed, in spite of the recommendation for mercy brought in by the jury. It was a question of politics, and the fury of the Orangeists was not more pronounced than the rage of those who wanted clemency. The true issue was practically lost sight of, and the suspicion of political intrigue was clearly revealed by the protest of Mr. Greenshields, one of the counsel for the accused, who asked for an adjournment in order to procure certain witnesses who were not in attendance.

Mr. Greenshields stated, that the prisoner's lawyers were frustrated in their efforts to obtain information by the counsel for the prosecution, or some one representing the Government, and proposed to offer no defence if forced to go on.

(To be continued.)

C. K. CLARKE.





"There's Beauty All Around Our Paths", North Gower, Ont.

FROM PHOTOGRAPH BY R. B. WHITE, OTTAWA.

## THE MACDONALD SCHOOL GARDENS.

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**I**N the spring of 1904 a group of school gardens went into operation in each of the Provinces of Ontario, Quebec, New Brunswick, Nova Scotia and Prince Edward Island. These school gardens are associated with Sir William C. Macdonald's plans for the improvement of Canadian schools, and they constitute a notable feature of the general scheme devised by Professor James W. Robertson, director of the Macdonald educational movement.

While the idea of using gardens as a means of social improvement is, perhaps, as old as civilization, they do not thus far appear to have been incorporated into the school system of any state as a distinctly educational factor. A brief reference to the growth of the idea may therefore help to place the Macdonald school gardens in their true relation.

According to Biblical tradition, a garden was recognized as an appropriate environment for the childhood of the race. King Solomon, who lived about 1015 B.C., was distinguished among other things for his plant lore, and it seems reasonable to assume that his extensive gardens, in which he kept all kinds of plants, were a means of useful knowledge as well as ornament. Six centuries before the Christian era Cyrus the Elder established the first school gardens in Persia. In these gardens Persian boys, particularly the sons of noblemen, received instruction in horticulture. Early in the fourteenth century some cities of Italy had gardens in which were grown plants from different parts of the world. In 1525 Gaspar de Gabriel, a wealthy Italian nobleman, laid out a botanical garden in Tuscany, and shortly after the revival of learning all the leading cities of Italy possessed such gardens. This example was soon followed by France and Spain, chiefly at the universities. However, it can scarcely be claimed that the celebrated Jardin des Plants originated in the desire to promote education, as it was established toward the end of the sixteenth century for the express purpose of furnishing new floral designs for the em-



A Hundred Gardeners, Richmond, Ont.



broiderers of court gowns. About the same time an interest in botanic gardens was awakened in Germany, where they were usually associated with the universities. In 1695 Auguste Francke established a school garden in connection with his orphan asylum at Halle. In this garden the orphans worked during their leisure. Thus far, and for many generations later, the idea of the garden as a special agency of elementary education found no definite embodiment, though it clearly was advocated by the great leaders of education from the days of Comenius, who declared that a garden should be connected with every school where the children can leisurely be taught to enjoy trees, flowers and herbs. Rousseau, in his "Emile", points out the importance of garden work as a factor in education. The philanthropists were at one with the educators on this point. Of school gardens Salzmann asserted that they were "laid out neither to draw the attention of passers-by, nor to give great returns, but to instruct." Pestalozzi, likewise, insisted on work in field and garden for its educational value. Froebel, who founded the first kindergarten in 1840, and who believed so much in making education a means of joy to children, advised having gardens for them as a true school of happy occupation.

In some parts of Germany, notably Schleswig-Holstein in 1814, and Nassau in 1817, provision was made for instruction in the rural schools in the culture of fruits and vegetables. In 1819 the village schools of Prussia began to give some instruction in agriculture. The example was followed later by Bavaria, Wurtemberg and other states, the aim in all classes being economic rather than educational. But by very force of the economic advantage anticipated, much stress was laid on the preparation of teachers for the garden work wherever it was introduced, and it will be at once apparent how influential were the labours of these early apostles of agricultural education in preparing the public mind of Germany for the large place agriculture occupies in her systems of education to-day. Oldenburg and Bavaria have made special progress in this direction. For the past thirty years, plant study has been a special feature in both the elementary and secondary schools of Berlin. Every summer morning two large wagons bring their



**A Group of Harvesters, Galetta, Ont.**



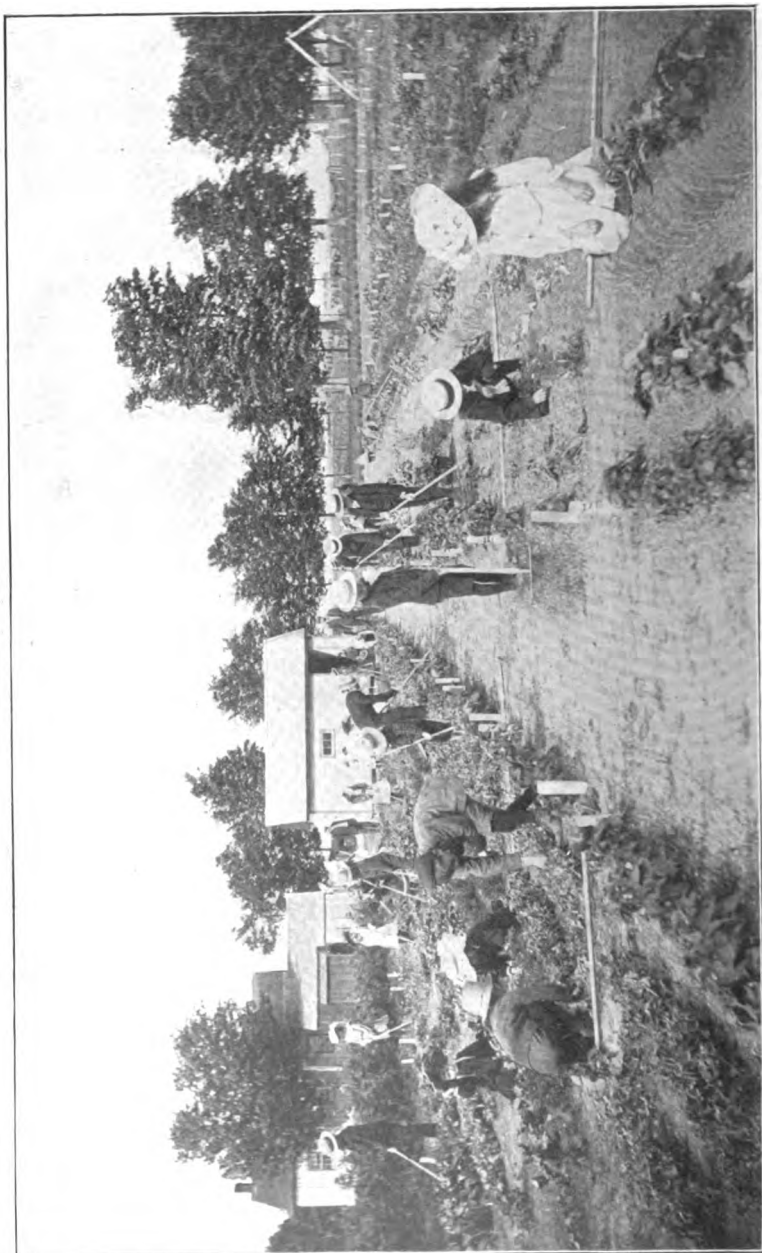
**The Heart of the Garden, Galetta, Ont.**

load of cuttings from the school gardens and distribute them to the different schools of the city. Teachers also take their classes to the gardens for lessons in botany.

In Austria, the Imperial school law of 1869 required that where practicable a garden and a place for agricultural experiments should be established at every rural school. This marks a new stage of development in the history of school gardens. As an economic agency they have spread throughout the country. In Styria there is no school without a garden. In this respect the Horticultural Society of Styria has done a work worthy of imitation by similar societies throughout the world. For many years it has distributed annually, free of charge, a large supply of cuttings, all kinds of seeds, and special varieties of both flower and vegetable seeds. At the exhibition at Gratz, in 1880, it exhibited a complete school garden.

In 1869 the Swedish government also took up the question of agricultural education. A royal circular required school gardens averaging from 70 to 150 square rods to be appropriately laid out. Gardening is taught in the seminaries for national school teachers. The children are taught the best methods of gardening, and each year they receive trees and shrubs to plant at their own homes. As in Austria the movement spread rapidly till in 1894 as many as 4,670 school gardens were reported. In 1891, however, a consular report gives the number in all districts of the country as only 1,398. It is apparent that the school garden has not taken hold of Sweden in the educational sense. The gardens exist chiefly as an agency of the teacher for giving instruction in agriculture viewed from the economic standpoint as an industry fundamental to the national prosperity. Educationally, manual training has attracted the attention of Sweden to a much greater extent than the school garden.

All state elementary schools in Belgium have gardens, and the study of horticulture is compulsory. Likewise in France, the importance of agricultural education has been recognized in the curriculum of elementary schools since 1882. School gardens there are in France in the majority of her schools, but these are almost solely for the teachers, who seem to be keen horticulturists. But of real *champs d'experience* for



**In the Middle of the Lesson, Bowesville, Ont.**

the children there are still very few, and as late as 1902 there were none in the rural schools.

The Russian government has for many years vigorously plied the school garden as an almost purely industrial agency. After the liberation of the serfs in 1861, and the release of the crown peasants from the jurisdiction of the ministry of crown domains, this plan for instructing the peasantry in farming was taken up. Teachers receive premiums for success in promoting agricultural knowledge. Everywhere in the elementary school the industrial idea dominates, though higher view points are gradually coming to the front.

To some extent during the past twelve years school gardens have been introduced into England, chiefly in connection with supplementary schools, conducted by private societies receiving state support. The children not only receive instruction, but do a measure of practical work, the aim being agricultural education.

With, possibly, the single exception of Switzerland, the utilitarian idea has prevailed in connection with the school gardens of Europe. In Switzerland, the pedagogical phase as well as the economic aim has for some years been kept in view in the management of the school gardens that have thus far been established.

At a meeting of the Massachusetts Horticultural Society, in 1890, a paper on horticultural education for children was read by Mr. Henry Lincoln Clapp, Master of George Putnam School, Roxbury, Mass. At this school a garden was established the following year as a result of the interest awakened. This garden, which appears to have been the first of its kind in the United States, was devoted exclusively to native wild plants until 1901, when a vegetable plot was added. Here and there within the past decade, and with various objects in view, the idea has been employed by private citizens, charitable associations, commercial firms, horticultural societies, and a few educational institutions, but as yet the school garden has not become an organic feature of any state system of education.

In Canada the school garden idea has also received some recognition prior to the Macdonald movement. For several years a very successful and quite extensive garden for boys has



**Gathering Flowers, Carp, Ont.**



**Harvesting and Ploughing, Carp, Ont.**

been conducted at Broadview, Toronto, by Captain Atkinson, of the Boys' Brigade Institute. Here and there throughout the Dominion, floriculture has been encouraged to some extent in the elementary schools. Under the aggressive advocacy of Dr. A. H. MacKay, Superintendent of Education, whose faith in all branches of nature study has been fully justified by his works, Nova Scotia has taken a leading place in establishing school gardens. In 1903 there were 52 school gardens in the province. Last July 79 in all were reported. The special courses in agriculture and nature study, recently provided for teachers, has had a considerable influence in promoting the school garden movement, though outside the Macdonald gardens, few are yet more than temporary efforts of the teacher for the time being.

#### THE MACDONALD SCHOOL GARDENS.

From the foregoing brief sketch it will be apparent that three leading motives underly the origin and growth of school gardens in Europe :—(1) to provide a convenient means of supplementing the teachers' income, thereby simplifying the problem of maintaining the public school ; (2) to promote a practical knowledge of horticulture and agriculture, thereby increasing the national prosperity ; (3) to furnish means and material for the practical study of botany as a desirable department of scientific knowledge.

The vast majority of European school gardens look to utility. Of the few that recognize the importance of the educational end, nearly all stop short at the acquisition of a certain amount of scientific information and the habit of careful observation. On the other hand, the Macdonald School Gardens, while designed to encourage the cultivation of the soil as an ideal life-work, are intended to promote above all things else symmetrical education of the individual. They do not aim at education to the exclusion of utility, but they seek education through utility and utility through education. The garden is the means, the pupil is the end. The Macdonald School Gardens are a factor in an educational movement, and for this reason Professor Robertson sought to have them brought under the Education Department, and not under the Department of



**Plots and Flower Border, North Gower, Ont.**



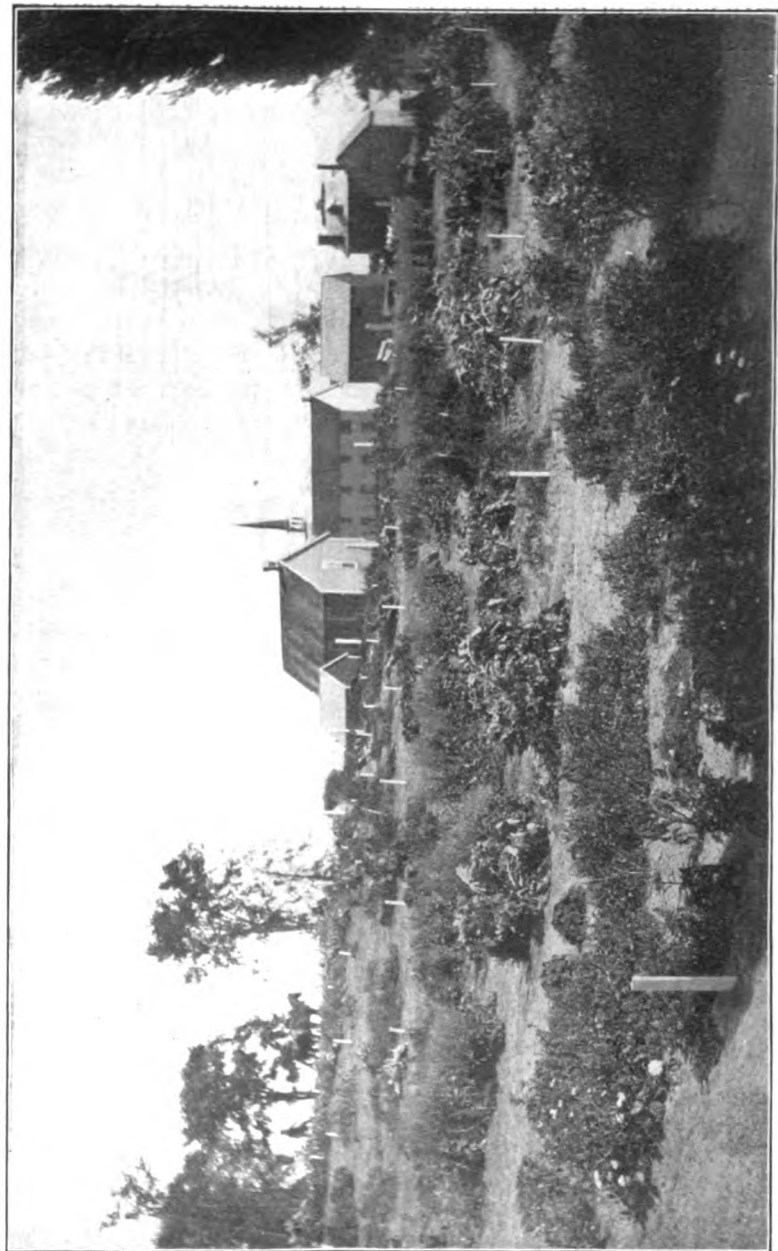
Agriculture, in each province. The fact that the various provinces already referred to have passed orders in Council incorporating the Macdonald School Gardens into their Educational systems at once places these school gardens on a broader educational basis than that occupied by the school gardens of any other state or country.

The Ontario Government has provided special courses at Guelph to train teachers in the practical educational aspects of this new work. An initial grant of one hundred dollars, as well as an annual grant, is offered to any rural school section establishing a school garden. At Truro and elsewhere in the Maritime Provinces, suitable courses for teachers are also provided. In New Brunswick, annual grants of thirty dollars to the Board of Trustees are given where a garden is established at an elementary school. In Quebec, extensive preparations for the training of teachers in the new lines of education are under way.

The Macdonald School Gardens not only have a recognized place in the provincial systems of education, but they are attached to the ordinary rural schools, owned by the school corporation and conducted under the authority of the school trustees and the express approval of the ratepayers.

The work of the garden is recognized as a legitimate part of the school programme, and it is already interwoven with a considerable part of the other studies. The garden is becoming the outer class-room of the school, and the plots are its blackboards. The garden is not an innovation, or an excrescence, or an addendum, or a diversion. It is a happy field of expression, an organic part of the school in which the boys and girls work among growing things and grow themselves in body and mind and spiritual outlook.

The true relation of the garden to the school has been in good part established by the travelling instructors whom Professor Robertson appointed to supervise the work in each province. These instructors were chosen as teachers of experience in rural schools, and were sent for special preparation, at the expense of the Macdonald fund, to Chicago, Cornell, Columbia and Clark universities, and to the Ontario Agricultural College, Guelph.



A Corner in Flowers, Carp, Ont.

THE SCHOOL GARDENS OF CARLETON COUNTY, ONTARIO.

The County of Carleton was selected by Prof. Robertson for the initiation of school gardens in Ontario, and the work that is being carried on here is typical of what is being done in the other four provinces. In all five gardens have been established under the Macdonald fund in Carleton County. Two of these are placed at Carp and Galetta, points on the Canada Atlantic Railway, distant twenty and thirty-three miles respectively from Ottawa. A third is located at Richmond, a small incorporated village in the heart of the county, distant from the capital about twenty miles by stage. The remaining gardens are situated at North Gower and Bowesville, the former about twenty-five miles and the latter five miles from the city. As the five schools at which these gardens have been established are from seven to fifteen miles apart, the experiment is being brought fairly under the scrutiny of the entire county. The garden at Richmond is within a short distance of the grounds of the County Agricultural Society, and will annually be open to the inspection of many hundred visitors to the fair. Already the gardens have attracted much local attention, and last autumn the products of the gardens won about a hundred dollars in prizes, given both by the agricultural societies and by private citizens who have taken a generous interest in this educational experiment.

After full discussion with trustees and ratepayers each garden was established under the direct approval and control of the school board concerned, and in harmony with the already existing regulations of the Education Department, which provide in a general way for instruction in agriculture and nature study, and also for enlarging school grounds. It is worthy of note that while the ratepayers interested were not indifferent to the question of expense involved, they paid special attention to the fact that they were being asked to take up an experiment of a very novel nature which required a marked departure from the beaten path of elementary school work. Thus the educational aspects of school gardens were specially considered, the result being that the people have taken up the enterprise with an open-minded interest that has already carried the experiment far on the way to success.



**A School Garden within Nature's Garden, Prov. Que.**



**First Lesson on the New Blackboard, Prov. Que.**

The size of the gardens, including the usual school grounds, is in each case two acres, excepting the garden at Richmond, which contains three acres. Where additional land had to be acquired, the Macdonald fund bore half the cost, as also the whole cost of fencing and preparing the garden, erecting garden shed and providing the necessary tools, &c. The cost of maintenance of the garden is likewise met by the Macdonald fund for a period of three years. For the same period Sir William Macdonald pays the salary of the travelling instructor, Mr. J. W. Gibson, who visits each garden one day per week to assist the teachers in directing the garden work of the pupils, to give lessons in certain practical aspects of nature study, and generally to encourage the association of the garden work with the ordinary exercises of the class room.

One of the most useful accessories to the school garden is the garden shed, which is used for storing tools and produce, and for carrying on work not suited to the class-room, such as preparing pickets and labels, analysing soils, assorting seeds, arranging plants, &c. The average cost of the garden sheds is about seventy-five dollars. They are of various shapes and sizes, according to the number of pupils to be accommodated. A popular plan is that of a shed shown in one of the accompanying cuts. This shed is ten feet by twenty feet, with an extension on one side about five feet wide, and finished as a green house. This obviates the necessity of having special hot-beds. The garden tools are disposed along the walls of the shed in places numbered to accord with the numbering of the pupils' plots. Along one side of each shed is a bench or table of plain boards, about eighteen inches wide, running close to the wall, along which are several small windows giving abundant light to pupils engaged in practical work.

The chief tools and implements requisite to the school garden are hoes, rakes, hand weeders, garden lines, one or two spades and shovels, a wheelbarrow, hammer, saw, nails, &c. The pupils, as a rule, require only hoes, rakes and hand-weeders. Those pupils who are sufficiently mature to work a plot by themselves, or along with a companion, can get along very well with hoes and rakes of the average size. In one case,

where smaller tools were supplied, the pupils abandoned them after a little practice for those of the standard size.

While the plan of laying out the gardens varies according to soil, surface and location, the accompanying outline of the Bowesville garden suggests the general features that have been kept in view. These include a belt of ornamental native trees and shrubs surrounding the grounds ; two walks, each about one hundred yards long, between rows of trees ; a playground about half an acre in area for the boys ; a lawn of about a quarter of an acre for the girls, bordered with some light and graceful shade, such as the cut-leaf birch ; a small orchard, in which are grown a few varieties of the fruit trees most profitable to the district ; a forest plot, in which the most important Canadian trees will be grown from seed and by transplanting ; a plot for cultivating the wild herbs, vines and shrubs of the district ; space for individual plots and special experimental plots ; an attractive approach to the school, including open lawn, large flowering plants, foliage, rockery, ornamental shrubs, &c.

The special experimental plots are, as a rule, larger than the individual plots. They are used for such purposes as the special study of rotation of crops, values of fertilizers, effects of spraying, selection of seeds, merits of soils, productiveness and quality of different varieties of crops, and many other similar subjects. At one school a special study was made of corn, clover, tomatoes and cabbage ; at another beans, peas, beets and potatoes occupied the experimental plots ; and at still another, some extra attention was given to plots of pumpkins, squash, cabbage and cauliflower. At all the gardens special plots will be devoted to small fruits, such as strawberries, raspberries, gooseberries, currants. The experimental plots vary in area from two hundred to two thousand square feet, but where the quantity of ground is restricted the experiments may be successfully carried out on plots of a much smaller average size.

The gardens are managed throughout on the basis of individual ownership, individual effort and individual responsibility on the part of the pupils. At all the gardens the pupils are given plots that are solely their own. According to the age and strength of the pupils, these plots vary in size from 72



**A Busy Half Hour, Galetta School.**

square feet to 120 square feet. At some schools each pupil has two plots, one for vegetables, &c., and the other for flowers. In other cases the flowers and vegetables are kept in different parts of the same plot. The former plan presents no inconvenience, and is found to contribute to the general appearance of the garden. At one of the school gardens the pupils' plots were uniformly ten feet wide by twenty feet in length, each plot being worked in partnership, a junior pupil working with a senior pupil in each case. Though very good results were secured by this method, the instructor considers the individual method preferable, and will pursue it in future.

About twenty varieties of flowers were grown at the different school gardens during the past season. Among these the more popular were aster, balsam, mignonette, nasturtium, pansy, petunia, phlox, poppy, sweet pea, and zinnia. The vegetables, cereals, &c., grown in the plots included among other things beets, cabbage, lettuce, potatoes, radish, tomatoes, barley, beans, clover, oats and wheat.

In the largest school, two hours work per week by the pupils was found requisite to keep the garden in proper condition. In one school the enthusiasm was so great that the pupils did all their garden work outside the regular school hours. At this school, also, the garden did not suffer from neglect in the slightest degree during the midsummer vacation of six weeks. Experience indicates that when the gardens are fully organized the plots can be well kept by devoting two half hours per week to the work. This time is mentioned not as the ideal condition, but as an encouragement to those who may desire to start school gardens in districts where prejudices are likely to be met. The fact is that in the ordinary ungraded school, and for that matter in the urban school as well, the working power of the pupils is ill sustained throughout the day owing to their merely forced interest in much of the prescribed work. An awakening as to the educational waste of our schools is coming, and when the school garden is seen in its true relation it will have a period in each half day of the school programme during the growing season. The children have ample time to spare, and the work of the gardens is pro-



moting their intelligence and progress in the ordinary school course.

The general adoption of school gardens may naturally bring about a desire to keep the rural schools open all summer, closing them in the winter when the roads are worst and the weather severe. The conveying of pupils to consolidated schools may also help to induce an arrangement of this kind. In the meantime there is no insurmountable difficulty or very serious problem in keeping the school garden decent during the long summer vacation. Even if the garden were to deteriorate from neglect during holidays, that fact would be of altogether minor consequence against school gardens, since a well ordered pupil rather than a well ordered garden is the supreme end of it all. If the pupils do not provide for their plots during vacation, by all means let the weeds grow. The worst possible mistake in such a case would be to pay a janitor or some other person to take care of the plots for indifferent and unmindful pupils. At some school gardens in Carleton county last summer, some pupils returned after vacation to weed-choked plots in which their flowers and vegetables compared very unfavourably with those of their more diligent companions. Their silent observation of this fact, and their strenuous efforts to redeem their plots, impressed upon them a lesson of moral and material value. At all the gardens the attendance of pupils averaged one hour each per week during the vacation. Where the garden work is conducted in the right spirit during the foreshummer the pupils can be relied upon to do their share in the vacation. The pupils look after their tools carefully, make notes of values and quantities of seeds sown, time spent in tending their plots, and quantity and value of produce obtained. In other words, a spirit of accuracy and thrift is inculcated and becomes in itself a valuable preparation for life work in any direction. The following statement in connection with a pupils' plot at the Bowesville school garden is taken from a report sent in by Mr. E. A. Howes, principal of the school. The plot is ten feet by twenty feet, and such early crops as radish and lettuce were succeeded by beans and turnips. The pupils' time is valued at ten cents per hour:

COST.		PROCEEDS.	
Preparing ground .....	\$ 10	20 bouquets flowers.....	\$ 60
Stakes and labels .....	10	2 quarts pease.....	20
Planting—2 hours.....	20	5 bunches carrots.....	15
Weeding, &c.—5 hours.....	50	5 quarts beans .....	15
Harvesting—5 hours .....	50	10 bunches radish ..	20
Seed : Peas 5c., beans 2c.....	7	8 bunches beets.....	16
Carrots 1c., beets 2c., onions 1c.	4	3 bunches onions .....	15
Parsnips 1c., radish 1c., let- tuce, 1c.....	3	5 bunches parsnips.....	20
Flowers.....	8	12 heads lettuce.....	36
	<hr/>		<hr/>
	\$1 62		\$2 17
Net profit.....	55		
	<hr/>		
	\$2 17		

## SCHOOL GARDENS IN THE OTHER PROVINCES.

The five Macdonald school gardens of the Province of Quebec are located at Knowlton, West Brome, Iron Hill, Brome and West Bolton. The grounds of these gardens are each about an acre in area, but a sufficient portion is devoted to pupils' plots and experimental plots to allow full scope for the essential functions of a school garden. Under direction of Mr. George D. Fuller, the travelling instructor, the usual preparatory work was accomplished in the autumn of 1903, and an introductory course in nature study was taken up during the following winter. Last season both individual and experimental plots were cultivated by the pupils of each school on lines similar to those followed in the Ontario school gardens. Some specially satisfactory results were obtained with the experimental plots, one at the Knowlton Academy proving particularly instructive and interesting to the pupils. This was an experiment to show the advantages of spraying potatoes with the Bordeaux mixture to prevent blight, the result of the yield being one hundred and ten per cent. more in the case of the patch of potatoes that had been sprayed.

The school gardens of New Brunswick are located at the Woodstock Grammar School, the Broadway School, Woodstock, the Hartland Superior School, the Florenceville Superior School, and the Andover Grammar School. In addition to the usual garden work, Mr. John Brittain, B.A., the travelling instructor, has taken up a quite extensive course of related nature study in all the grades of the schools placed under his super-



**School and Garden Site, Kingston, N. B.**



**An Approach to Kingston School, N. B.**

vision. "In this way only," writes Mr. Brittain, "could I actually feel for myself the effect of nature study upon the minds of the children, and learn what phases of nature and what modes of presentation awakened in them the keenest response at different ages. My experience has confirmed me in the opinion that in the natural surroundings of the child are to be found the best means of stimulating and developing in a healthy way his intellectual powers and aesthetic tastes, and in no small degree also his emotional nature."

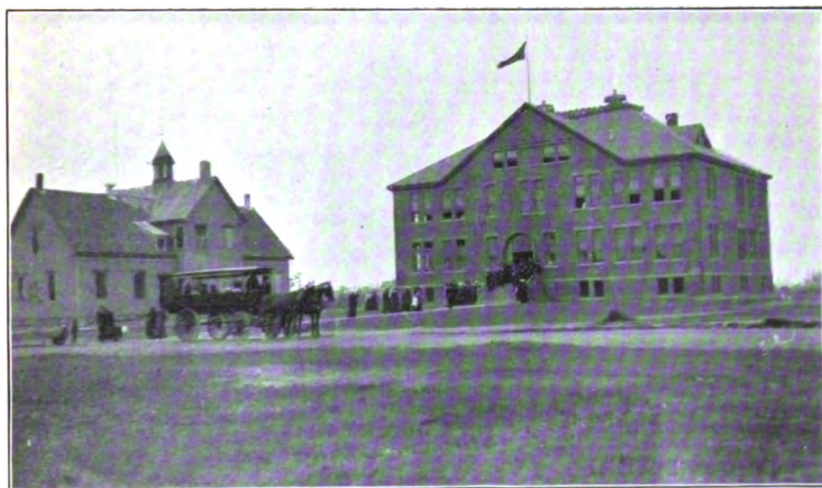
At the commencement of the school garden work Mr. Brittain found many of the pupils unable to distinguish the seeds of common garden vegetables, and quite unacquainted with their modes of growth and cultivation, but all took a satisfactory interest in the garden from the outset, and the teachers were very favourably impressed with the results. The children were invited to come to the gardens once a week during the vacation to cultivate their plots. Those who expected to be absent were asked to get a schoolmate to act as a substitute. Many pupils responded; yet quite a number of plots would have been neglected had not other provisions been made. At three of the schools one or more of the larger pupils were employed to attend to these plots and to other parts of the garden. The products of the garden outside the individual plots were sold to defray the cost of this hired labor.

The individual plots varied in size from fifteen square feet to thirty-two square feet. The younger pupils worked larger plots in groups or classes.

The school gardens of Nova Scotia are under the supervision of Mr. Percy J. Shaw, travelling instructor. They are located at Brookfield, Old Barns, Belmont, Bible Hill and Great Village, all except the latter within a few miles of Truro, Great Village being about twenty miles distant. The gardens are from one to two acres in extent, and are each divided into two parts, one of which is taken up by the children's plots, and the other by rows of vegetables, also owned by the children. The individual plots are each four feet by six feet and contain only four kinds of seed, one at least being flowers. The rows, each about thirty feet long, contained nearly all the vegetables usually grown in the Province, and included about



**Ready to Start for Home, Middleton, N.S.**



**Macdonald Consolidated School, Middleton, N. S.**



**How to make a School Garden, P. E. I.**



**Garden Shed with Greenhouse Extension, P. E. I.**

forty kinds. The pupils' plots contained as a rule wheat, peas, beans, radish, sweet peas, nasturtium and sunflower. After the season's experience Mr. Shaw reports that "the pupils' plots should be larger than four by six, say five by eight, or even longer. In a smaller plot not enough of one thing can be grown to enlist the full interest of the child." Speaking of the relative merits of the plots and the rows, Mr. Shaw states that while the latter are perhaps more easily cultivated and suffer less from drought, the pupil's area is better defined in plots, and hence his personal interest is greater.

The school gardens of Prince Edward Island are located at Kensington, Bedeque, Searletown, Tryon and Emerald. Under the direction of Mr. Theodore Ross a very favourable beginning has been made. The grounds are each two acres in extent, and the work of fencing, preparing and equipping has been almost completed during the past season. Over two thousand two hundred native trees, chiefly evergreens, were set out last spring with scarcely a single loss. The pupils' plots are all four feet wide and four to twelve feet long. Each pupil grew only two things, as corn and nasturtium, beans and sweet peas, &c. In addition to the actual instruction in the garden, Mr. Ross gave considerable attention to the ordinary school programme, assisting the teachers in relating arithmetic, composition, reading, drawing, water colours, &c., with garden work and general nature study. The plots for special experimental purposes contained clovers, peas, vetches, beans, flax, &c., and were a subject of much interest to many visitors as well as the pupils. The teachers report that the school gardens have inspired the common studies with a new interest. It is worthy of note that the people have assumed a responsibility and have heartily co-operated in making the gardens a success. In several sections the ratepayers gave material help in fencing, plowing, supplying manure, &c. Owing chiefly to the interest awakened in the school garden at Tryon, two adjoining school districts have united with Tryon to establish a consolidated school.

#### ADVANTAGES OF SCHOOL GARDENS.

Speaking broadly the school garden has an educational, an economic, and a national aim. Educationally it affords a

healthful release, in the fresh air and the sunlight, from the present hurtful inactivity of the school-room. In this way it contributes to symmetrical development. The school has long been indifferent to the natural tendency of the young to exert their bodily energy. The result has been a great loss of working power in the pupils and a wasteful diversion of teaching energy. The school garden may become a means of gradual reform by affording scope for the motor activities. Bodily maturity comes long before maturity of spirit. The motor areas of the brain grow chiefly in early youth, and effective motor education must begin early. To this end the school garden is in some ways preferable to manual training, as it carries the influence and association of man's greatest productive industry.

It provides a course suitably complementary to the otherwise rather bookish programme of the school, affording at the same time an excellent concrete basis for several studies that are at present unreal to the average pupil. Work in the garden is regularly correlated with the arithmetic, reading, composition, drawing, spelling, &c., of the class-room. Where gardens have been in operation a few years, the school authorities report that the pupils are decidedly superior to others of their age in general education. A problem in surface measurement worked out practically in the garden is educationally worth many such exercises in the school where the pupil has to imagine the conditions. In reference to language training Mr. E. G. Worley, principal of Carp school, says: "The influence of the work on the language of the pupils is remarkable. The children seem to be in an environment adapted to them. They have thoughts about something familiar which they can express. The work frees them from that artificial expression so common among children when they are trying to express something they do not understand clearly."

The school garden as an introduction to nature study lends itself to the development of literary appreciation. Ability to appreciate the charm of many of the best poems depends not a little on ability to form visual images of natural objects. This in turn depends upon the interest, sympathy and delicacy of eye with which we have learned to discern many beauties of nature. To children who have become students of nature,



literature presents a two-fold attraction. It calls up pictures of pleasant experience in out-door life, and it intensifies the joys of further nature studies. The urban eye of the town-bred child, who has never been interested in garden or field, must fail to catch the imagery of our best nature poems.

Through the work of the school garden the pupils' powers of observation are turned into the orderly channels of cause and effect. His ever widening outlook toward the objects and forces of nature frees his mind from the power of sensory illusions and his moral nature from superstitions. Habits of accuracy are formed in measuring the value of experiments according to the results obtained. In noting carefully and with deep interest both causes and effects, in assuming responsibility for work that he performs in equal opportunity with his companions, in daily exercising his power of initiative, in constantly combining thought and action, he is steadily developing elements of character that must prove of great value in after life. The good influence of the school garden on the discipline and moral tone of the school is remarked by all the teachers. Pupils hitherto troublesome have become orderly and docile. The percentage of regularity in attendance has increased, and a deeper interest is taken in all the work of the school.

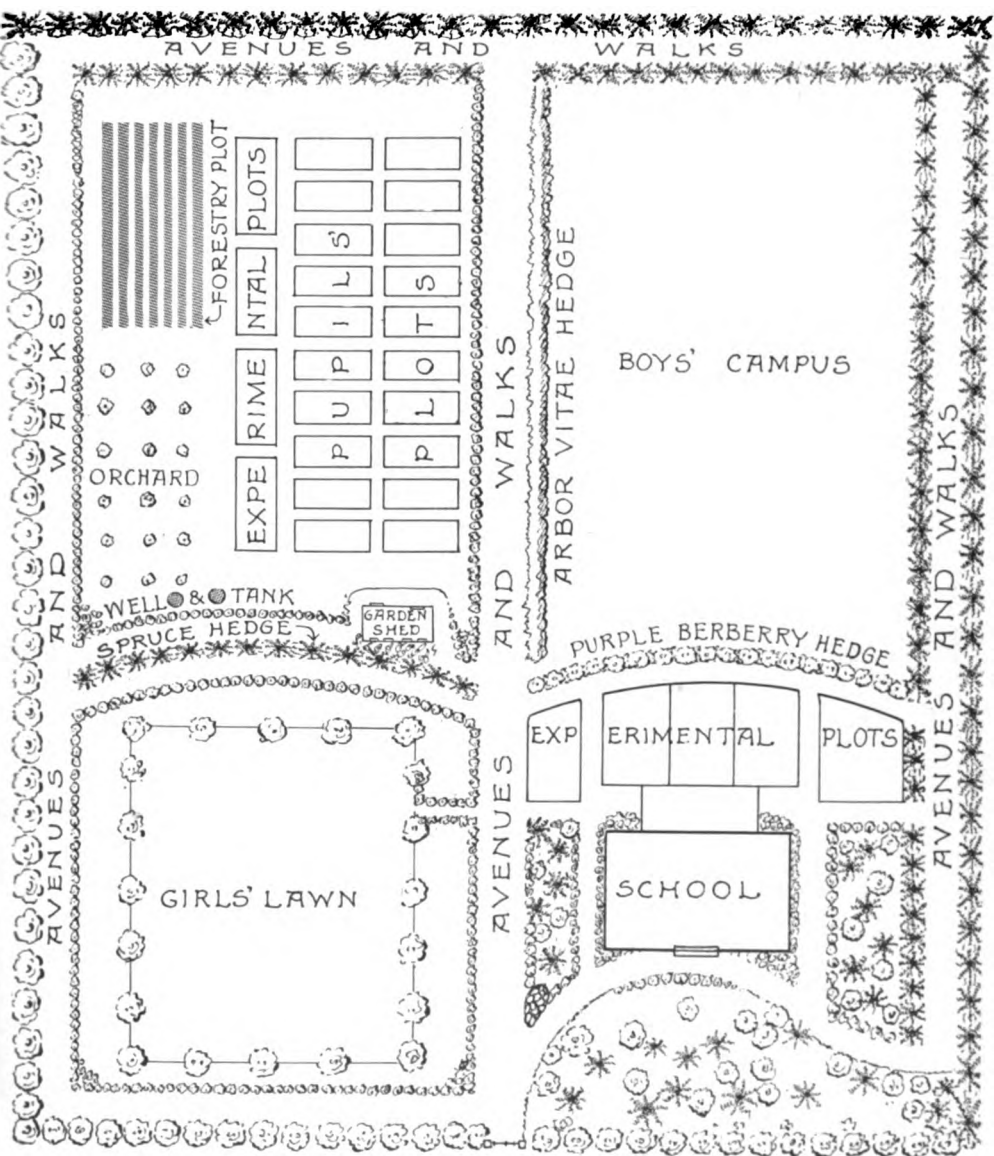
On the economic side, the school garden teaches the constituents of the soil, the conditions of plant life, the value of fertilizers, seed selection, drainage, tillage, &c. It also produces the best trees, plants and seeds for free distribution, and stimulates a spirit to improve the farms and beautify country homes. A special study is made of noxious weeds and enemies of farm and garden, and how best to destroy them. The instruction given to the older boys in the principles and practice of grafting must of itself prove of great economic value. The Macdonald school gardens aim at education. They aim also at achieving many of the best economic results that have been obtained in Europe. In no small degree the vast orchards and well managed forests of Prussia owe their origin to the rural school master. The famous orchards of Moravia and Bohemia are the result of instruction in the school gardens.

In its national aspects, the school garden develops a wide interest in the fundamental industry of the country. It culti-

vates the sense of ownership and a social spirit of co-operation and mutual respect for one another's rights. In the care of their own plots the pupils fight common enemies and learn that a bad weed in a neglected plot may make trouble for many others. The garden is a pleasant avenue of communication between the school and the home, relating them in a new and living way, and thereby strengthening public interest in the school as a national institution.

The tendency of young people to rush to the cities has become an evil in some countries and, if not checked, is likely to deteriorate the national life of Canada. In towns and cities the school garden will develop a desire in the rising generation to possess at least sufficient land for a garden. The city boy will spend more of his leisure on the home lot and less on the street. The city girl, who is now too much confined to the house, will develop a bodily vigour that can only be acquired in the sunshine and open air. The school garden will train the urban population to look toward the country. It will train the rural population to remain in the country. It will convince the young mind that the work of the farmer gives scope for intelligence and scholarship and holds out the promise that a life of industry in the country will win rewards of prosperity, independence and happiness.

R. H. COWLEY.



Outline Plan of School Garden, Bowesville, Ont.

## PROFESSOR CAPPON'S ARTICLE IN QUEEN'S QUARTERLY, JANUARY, 1905.

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**I**N the article under the heading, "Sir William Macdonald and Agricultural Education," by Professor Cappon, in the Queen's Quarterly of January, 1905, I find much with which I am in hearty accord and some statements and arguments with which I do not at all agree.

On page 316, Professor Cappon says: "And it is worth noticing that neither England nor Germany, though each is making great efforts to provide sufficient technical and commercial education for its youth, is in the least inclined to displace or impair its old educational system for that end. Both are wise enough to see that the two ends are distinct.

"Of course the old system is no longer commensurate with all the needs of our age. It does its own proper work well, but it cannot do work which it was never intended to do. It was established in days when industrial and technical training were left to individual enterprise and the natural operation of local habits and influences."

I do not agree with Professor Cappon when he says that the old system of education does its own proper work well. I think it has come far short of that in our elementary and secondary schools, and that not because industrial and technical training are neglected or omitted. Moreover, I do not think any training of that sort should be included in the elementary schools; but in them the pupils might be prepared to profit by some measure of technical, and perhaps of industrial, training in the secondary schools.

That the old or present system of education has failed to do its own proper work well is more than implied, in a larger way than I could endorse, in the following sentence which I quote from Professor Cappon on page 319: "Otherwise we shall continue to see what we see on this continent today, the mere fever of material life, the growing effrontery of the corrupt politician and the apathy of the public in connection with it, the steady depreciation of standards in literature and art, and

the open contempt of the healthy pleasures and occupations which rural life affords."

In reference to what England and Germany are not inclined to do, Professor Cappon says, also: "I will help myself here with the authority of Principal Peterson, of McGill University. In his recent pamphlet on 'National Education,' he says: 'Germany recognizes the traditional curriculum in Classics, Mathematics and Modern Languages as the best means of training for all, whether they are going to the University or not.'"

From all I can learn, both England and Germany have done much, and are likely to do very much more, in the way of improving their educational systems, and I am in agreement with some of the best leaders in educational matters in England when I say that it would not impair our systems in Canada to include in the elementary schools, Nature Study, Manual Training and Household Science "as the best means of training for all, whether they are going to the University or not."

The Code of Regulations for public elementary schools, issued by the English Board of Education, 1904, presents as the course of instruction—(1) The English Language, (2) Arithmetic, (3) Nature Study under what I cannot help thinking the clumsier name of "Knowledge of the common phenomena of the external world," (4) Geography, (5) History, (6) Drawing, (7) Singing, (8) Physical Exercises, (9) Plain Needlework. The Code further provides: (I quote from it) "Instruction in the following subjects (for which special grants are made on the conditions specified in Articles 34-36) may also be given to scholars in the upper classes under the regulations of Schedule III, where adequate equipment and efficient teachers are available:

"FOR BOYS—Handicraft, Gardening, and (in schools in seaport towns, with the special consent of the Board) Cookery.

"FOR GIRLS—Cookery, Laundrywork, Dairy-work and Household Management."

For a comparatively small number of children the study of Latin and Greek is necessary that they may be equipped in mature life for their professions; and to a few of that few, the study may be beneficial as a means of culture.

But surely not even Professor Cappon will claim that the study of these languages, to the extent practicable to boys and girls in the elementary or even in the secondary schools, can compare for a moment (in culture value, or in forming and strengthening the character and developing the intelligence of the children, or in fitting them for the work of life) with the training of their faculties by means of Nature Study work, Manual Training and Household Science. I take it that the child in its body, mind and spirit is one and indivisible, and that "the training of faculty" includes the development of whatever capacity he may have towards bodily ability, intelligence and fine spirit for the service of his fellows and of truth.

At page 319 I read the following sentence in Professor Cappon's article: "But, like most reformers, Professor Robertson is apt to take extreme views. Is it really necessary in order to promote the cause of agricultural training that he should dispute the place which the more general and literary elements of education have in our present system, and *attack everything* from grammar, which has a much higher value as an elementary training in the psychological and philosophical analysis of speech than some educationists understand, to the study of arithmetic and literature?" The italics are mine.

In this Professor Cappon appears to veer towards what the man in the street irreverently, and I think erroneously, calls the literary type—long on imagination, short on fact. Of course it is not necessary that I should attack everything from grammar to the study of arithmetic and literature. I have not done so and have no desire to do so. On the contrary, I have been doing my best to commend, to encourage and to bring about more effective methods of study in arithmetic, in language both spoken and written, and in literature. The methods and subject matter of the elementary schools in the past, through their bookishness, have hindered the turning out of pupils with ability to read and write well, to speak correctly and to compute accurately and quickly. It is my belief and hope that Nature Study, Manual Training and Household Science as methods of education will supplement books in helping the children to express themselves in clear, correct and beautiful language as well as in actions.

I quote here from a memorandum which I submitted on this subject to the Government of the Province of New Brunswick some two years ago :

"The educational system of the province should be considered as a whole.

"I. The course or courses of study should primarily be such as,—

(a) To develop good, sturdy characters and right habits in the pupils ; and

(b) To qualify them to fulfil the duties of citizenship with intelligence.

"II. Efforts to develop the elementary and secondary schools should be directed towards adjusting the subject matter and methods of instructing the boys and girls, to prepare them for engaging successfully in occupations suited to their own locality or to some other part of the province.

(a) Nature Study and school gardens ; Manual Training in drawing, cardboard and wood ; and Domestic Economy, are all in that direction." Etc.

In an address delivered before the members of the Legislative Assembly of Nova Scotia, at Halifax, about the same date, I said in regard to the study of language and literature in elementary schools :

"As far as practicable, all training in observation, investigation, understanding and recording, should include lessons in reading, writing and arithmetic. The exercises written regarding what had been examined, recognized and understood, would become language lessons of a really valuable sort; lessons in growth of thought ; lessons in expression of thought; lessons in arrangement of thought; lessons in clearness, brevity and fullness; lessons in correctness and beauty of sentences.

"Such studies would also lead to the love of good literature. A child trained to close observation, quick recognition and intelligent understanding of the things that lie about him, would be ready to relish and appreciate good literature. He would catch the meaning of the author, the beauty of the expression, the uplift of the sentiment, as no one could who had not behind his reading or listening as much experience or feeling, perception and imagination, as the well trained child."

Near the close of his article Professor Cappon says: "These

and some other principles, either doubtful in themselves or used in a too exclusive way, underlie Professor Robertson's general theory of education. I have expressed my opinion about them all the more plainly that I do not think they are necessarily included in his real aim, which is to promote the scientific and practical study of agriculture. On the contrary, I think it would serve his real aim well and contribute to the elevation of agricultural pursuits if he were to make a fair amount of literary education an essential part of his higher courses in agricultural science."

I hope my real aim is somewhat broader, deeper and higher than the worthy one named by Professor Cappon, viz., "to promote the scientific and practical study of agriculture;" and I think there should be not only "a fair amount of literary education as an essential part of the higher courses in agricultural science," but as large an amount as the capacity of the student and his opportunity make feasible. Further, I would like to see all the rest of his course or courses not subordinate to literary training, but certainly contributory to his progress in that regard.

Professor Cappon devotes almost the whole of two pages (320 and 321) to a discussion of some theories of education which I am unable to recognize as mine. With much gusto he overturns the straw men he so deftly sets up. For myself, some knowledge of the needs of rural populations and of the art of agriculture has taught me more useful and congenial employment for "the literary faculty and instinct" than the mental exercise which that sort of thing affords. I prefer even the mission which Professor Cappon assigns to me, viz., "to preach the value of practical and 'constructive' work in the education of youth." However, it is more to my taste to leave the preaching to those who are qualified and to continue my labors in other ways towards bringing about its adoption as the method in general for general education in the schools.

In almost any other communication I should not have thought it necessary to explain that the practical is more than the material and that more "things" are constructed by work in the education of youth than the models in the Manual Training room. These might all be consumed and "the real thing" left in the character of the lad.

JAS. W. ROBERTSON.



## CURRENT EVENTS.

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### THE PRINCIPLE OF SECTARIANISM IN THE CANADIAN CONSTITUTION.

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#### THE CRISIS WHICH LED TO CONFEDERATION.

**I**N 1864 the Legislative Union, under which the Provinces of Ontario and Quebec had been governed since 1841, had come to a dead-lock. One short-lived administration succeeded to another, and the country was without stable or satisfactory government, a majority from one province often combining with a minority from another to force upon the latter legislation which it did not approve of. The Ontario Liberals, in particular, then led by George Brown, complained that their Reform measures, their endeavours, for example, to free themselves from the "dominant Anglican establishment" and their struggles for economic reform had been constantly opposed by "the French Canadian members of the Cabinet and their supporters". "The French Canadians", Mr. Brown wrote, in a historic letter to the Roman Catholics of Ontario, "felt their power and used it relentlessly....by their unity of action they obtained complete dominancy in the management of public affairs". (See *Mackenzie's Life of Hon. George Brown*, p. 123).

For some time Mr. Brown had advocated as the only remedy for these evils a reformed system of representation on the basis of population. Under that system Ontario, which had the larger population and paid a much greater share of the taxation, would obtain what he considered a fair measure of control over legislation. Naturally the proposal of Mr. Brown and the Upper Canada Liberals was ill-received by the French-Canadians, who had conceded equal representation to Ontario in 1841, when that province was still inferior in population to Quebec. Nevertheless, the scheme was in accordance with modern constitutional ideas, especially with Reform ideas, and became a rallying cry for Ontario Liberalism which French-Canadians felt it would be difficult to withstand, though they saw it would put their peculiar provincial institutions, and in

particular their religious and educational ones, to some extent at the mercy of an Ontario majority. One does not need to read far into the debates of 1865 on Confederation to see that it was mainly to avoid these consequences that the French-Canadians of Quebec, as a whole, were induced to enter into a scheme of Confederation with the other provinces of British North America. Some of their leaders saw still greater dangers threatening their racial existence and traditions, from which only a strong Confederation of the British North American provinces, supported by the power of the British Empire, could, as they said, save them. They saw that the growing might of the American Union and the somewhat aggressive attitude it had begun to assume was certain sooner or later to absorb the weak and scattered provinces to the north. They foresaw the inevitable extinction of their peculiar institutions and traditions in such a Union; they foresaw as their own the fate which had befallen their brethren of Louisiana. Such in fact were the arguments with which the French-Canadian fathers of Confederation, Sir E. P. Taché, Cartier and Langevin, appealed to their Quebec compatriots in the great debates on Confederation. (See *Debates on Confederation*, Feb. 3, 7, 21). Absorption and racial extinction in the American Union, or Confederation with the support of the British Empire, those were the alternatives which the French-Canadian leaders laid before their people.

The proposal for Confederation had often been mooted before, but in 1864 circumstances were exceptionally favourable for its realization. There was the dead-lock in the legislative affairs of the two Canadas; there was the aggressive attitude of certain parties in the United States, and, as it happened, the Maritime Provinces at the suggestion of Mr. Tupper, then Premier of Nova Scotia, was about to meet to consider a union of their own. That was the situation of affairs when George Brown, the leader of the Ontario Liberals, approached the Macdonald-Cartier Government with a proposal to unite their forces and carry through a scheme of Confederation for all the provinces of British North America. The Macdonald-Cartier Government took up the scheme; a Coalition government was formed, in which Sir E. P. Taché was Premier, and Macdonald.

Cartier and Brown members of the Cabinet. Brown naturally had refused to serve in a ministry of which either of his great opponents, Macdonald and Cartier, should be the head. Delegates were appointed to meet those of the Maritime Provinces at Charlottetown, and the whole body of them were ultimately empowered by their governments to assemble at Quebec and agree as to the terms on which the provinces would enter into a Confederation. These terms were embodied in the Quebec Resolutions of 1864.

#### THE QUEBEC RESOLUTIONS.

At the Conference, which was held with closed doors, Macdonald expressed himself in favour of a legislative union of all the Provinces as the more economical and the stronger form of unification ; the sentiment of Upper Canada in general was favourable to that view. But Cartier and the French-Canadian members were resolved that the essential principle of the union should be federal, leaving each province full control of its own affairs, and in the debates which afterwards took place in the Legislature on these Resolutions the Hon. Hector Langevin, who had been one of the delegates, explicitly stated that many of the restrictions upon the powers of the Federal government had been made to satisfy the Lower Canadians, and in particular the question of education had for that reason "been left to our local legislature, so that the Federal Legislature shall not be able to interfere with it." (Debate on Confederation, pp. 373 and 387). He knew, as they all did, that the fullest possible local autonomy was a necessary condition to obtain the consent of the French-Canadian members and the French-Canadian people to Confederation. The feeling of the Maritime Provinces, also, went in the same direction.

But there was another section of the Canadians that considered their position also required special safeguards in the new Constitution. This was the Protestant minority in Lower Canada. This section was represented particularly by the Hon. A. T. Galt, Minister of Finance in the Coalition government, and one of the Quebec delegates. As a matter of fact the Protestant minority in Quebec had been well treated in the matter of their separate schools, but their position was not

legally secure, and it would in some ways be still further weakened when education in Quebec passed, as it would necessarily do after Confederation, into the control of the Local Legislature. There were also the rights of the Catholic minority in Ontario to be considered. To meet the difficulty the 43rd section of the Quebec Resolutions was agreed upon. That section gave every province which should enter Confederation the exclusive right of legislation in education, but added the clause "saving the rights and privileges which the Protestant or Catholic minority in both Canadas (in Ontario and Quebec) may possess as to their denominational schools at the time when the Union goes into operation."

Nothing could be clearer and simpler than the terms of the Quebec Resolutions which were agreed upon as the basis of Confederation. That clause contains the original compact for the settlement of the religious or sectarian question in education. It was not meant to be applied to the other provinces; it was not meant to be applied to new provinces which might afterwards be created. The 10th article of the Resolutions, which deals with that contingency, simply states that "The North-West Territory, British Columbia and Vancouver shall be admitted into the Union on such terms and conditions as the Parliament of the Federated Provinces shall deem equitable, and as shall receive the assent of Her Majesty." These Quebec Resolutions were presented to the Legislature of the two Canadas and voted by them as the terms on which they agreed to enter Confederation, and in accordance with that vote the usual address to the Queen was sent asking for an Imperial Act of Confederation. The Government of the two Canadas would not even accept any amendment on a single article. They explained that the Resolutions were of the nature of a treaty with the other provinces which could not be altered. Hon. John A. Macdonald, who moved the Address in the Assembly, said "We must consider this scheme in the light of a treaty. . . . I trust the scheme will be assented to as a whole." (Debate on Confederation, p. 31).

Many of the French-Canadian members were uneasy over the scheme. Some of them, like the Hon. Letellier de Saint Just, feared it would come sooner or later to a legislative union

in which the autonomy of Quebec would be lost. (See Debates, p. 263.) The Hon. Antoine Dorion tried to alarm the Upper Canada English by putting the matter in another way. "May it not happen," he asked, with prophetic soul, "that the majority from Lower Canada will unite with a minority from Upper Canada and impose upon that section a local Constitution distasteful to a large majority of the people of Upper Canada?" To all these objections the answer given by Cartier, by Macdonald, by Langevin and other leaders was always the same, namely that the essence of this Confederation is the Federal principle, the full recognition of local autonomy. Cartier's words defined the principle clearly:

Under the Federation system, granting to the control of the General Government, those large questions of general interest *in which the differences of race and religion had no place*, it could not be pretended that the rights of either race or religion could be invaded at all. We were to have a General Government to deal with matters of defence tariff, excise, public works. (Debates, p. 60).

There may be doubt about many things in our Constitution, but there can be no doubt about the original compact on which Ontario and Quebec (they were the only two provinces that passed the Resolutions) consented to enter Confederation. Provincial autonomy was its fundamental principle, and the recognition of the principle of sectarianism was strictly confined to Ontario and Quebec. It was with the authority of the vote based on these Quebec Resolutions that the Canadian delegates in November, 1866, went to London to ask the Imperial Parliament to pass an Act for the constitution of what is now the Dominion of Canada. How, then, did this clear and simple settlement of the educational question made by the 46th article of the Quebec Resolutions come to be altered and obscured in the British North America Act of 1867?

#### POSITION OF THE PROTESTANT MINORITY IN QUEBEC.

The answer throws an illuminating light on the politics of the time. The clause in the 46th article of the Quebec Resolutions, protecting existing denominational rights in Ontario and Quebec, was not and was never meant to be, of itself, a sufficient protection for the Protestant minority in Quebec. They stood in a somewhat different position from the Catholic

minority in Ontario. The Catholics in Ontario were for various reasons more content with and more assured of their rights than the Protestants in Quebec. The Separate School law of 1863, which had been imposed upon Ontario by the preponderating influence of the French-Canadian members in the Sandfield-Macdonald-Sicotte Administration (See Pope's *Memoirs of Sir John A. Macdonald*, Vol. I, pp. 244 and 246, and compare Sir Wilfrid Laurier's remarks on the subject in his recent speech introducing the Bill for the North-West,) gave them a more effective machinery than the Protestants of Quebec possessed legally. The latter, although their actual privileges were as great as those of the minority in Ontario, or even greater, would be in a weaker position legally after Confederation, and they were besides much more afraid of the aggressive spirit and the control of a hierarchy. Therefore it had been agreed on by the delegates who drew up the Quebec Resolutions that the Legislature of the two Canadas should pass a Bill, *before Confederation took place*, to strengthen the legal position of the Separate Schools in Quebec. This arrangement was quite well understood as part of the compact, as a necessary accompaniment of article 46th of the Resolutions. In the debates which took place in the Legislative Assembly on the Resolutions both Macdonald and Cartier gave solemn assurances on the subject in answer to Mr. Holton. (Debates, p. 18 and p. 394.) The Hon. George Brown, in that very speech which Sir Wilfrid lately turned to such curious account, referred to this matter when he said that it was on "this understanding (of further legislation for the minority in Quebec) that the educational clause was adopted by the Conference"; and it is perfectly clear from his speech that he understood that there was to be no further extension of the sectarian system in the Confederation, no danger of it being extended "till the whole country was studded with nurseries of sectarianism." (Debates, p. 95.)

Well, what happened? The Government of the Canadas did attempt, as they promised, to pass a Bill during the last session of the old Legislature securing legally the privileges which the Protestant minority in Quebec enjoyed. But the French-Canadian members would not hear of it. Their

position was summarized thus by Hon. Mr. Cauchon : " We will pass a Bill in the Local Legislature later on, after Confederation, granting you these guarantees, but it is an insult on your part to try and impose them on us now." That is, the French-Canadian members refused to pass forestalling and unalterable legislation for their province, of the kind which Sir Wilfrid now seeks to impose on the North-West. So that the privileges of the Protestant minority in Quebec would have lacked any higher sanction than that of the Local Legislature unless some way had been found of safeguarding them in the British North America Act.

#### THE EDUCATIONAL CLAUSES IN THE ACT OF UNION.

In 1860 the Canadian delegates, as I have said, went to London to arrange with the Imperial Government for the passing of an Act creating a constitution for the Confederation, and the way they took to give the promised legal security to the Protestant minority in Quebec is seen in the curious 2nd and 3rd sub-sections of the 93rd section. The 3rd sub-section declares that any separate school system which exists in *any* Province at the Union, *or is thereafter established by the Legislature of the Province,*" shall be protected against Provincial changes by the right of "appeal to the Governor-General in Council." This was obviously designed to make fast the legislation which Cartier and Langevin still promised to get for Galt and the Protestant minority in Quebec. But then M. Cauchon and his friends might refuse to pass it in the new Local Legislature. Therefore, no doubt, the 2nd sub-section was added (it does not appear in the early Drafts) extending all the rights enjoyed by the Catholic minority in Ontario to the Protestant minority in Quebec.

It would be difficult to discuss such changes without generalizing the principle of sectarian rights, and whether the delegates originally intended it or not, even in the early draft of 4th December, 1866, the general clause safeguarding sectarian privileges is extended to "any province . . . at the time when the union goes into operation." In addition to this, in the final form of the Act as passed by the Imperial Parliament, a new clause was added in the 146th section making the admission of

the North-West Territories into the union "subject to the Provisions of this Act." The general result then of the British North America Act of 1867, the Act of Confederation, was to establish the rights of the Separate School System, not in any general uniform way, but with the particular modifications under which it might exist by law in each of the provinces "at the union." And further its terms, particularly those of the 146th section, might be considered as extending the rights of Separate Schools to new provinces in the North-West, if certain conditions existed there.

It may seem surprising that a few delegates should venture on such material alterations of the Quebec Resolutions which had been so solemnly submitted to the Legislature and accepted as the conditions of Confederation. But both Sir John Macdonald and Sir George Cartier were men who stepped lightly over such obstacles, each guarding in his own way what he thought to be in the interests of his race. Mr. Brown was not on the deputation this time and Dr. Tupper was in a weak position politically. Besides Nova Scotia required better terms in other matters. These particular alterations, also, were really favourable to French-Canadian interests or such as they would not object to. Sir John knew his position well. In a letter which he wrote to Mr. Tilley of New Brunswick before leaving Canada, he said, "The measure must be carried *per saltum* and no echo of it must reverberate through the provinces until it becomes law . . . . Even Canada would be stirred to its depths if any material alterations were made. The Act once passed and beyond remedy, the people would soon learn to be reconciled to it." (Pope's *Memoirs of Sir John A. Macdonald*, Vol., I, 1308). It may be said, however, that the legislation of the Act of 1867 as regards education was fairly elastic and adjustable to the different conditions of different provinces. Only in the case of Ontario and Quebec were these conditions fixed. For the rest it carefully reserved to *any* other province the right to define by its legislation what its views of sectarian rights were and only permitted Federal interference by way of remedial legislation and after appeal. It is an important restriction, for the original right of legislation may determine many questions as to the legality of administrative machinery, right of



appeal, procedure and so forth, and thus permits a new province to adjust its legislation readily to the new conditions which are sure to arise in it. If therefore the sectarian rights accorded by the Act of Confederation are to be applied to any new provinces, *under the authority of that Act*, then that limitation as regards Federal interference must go with them. Sir Wilfrid Laurier, of course, is well aware of the fact. It is not, therefore, from either of the solemn compacts on which our Constitution rests, the Quebec Resolutions or the British North America Act of 1867, that Sir Wilfrid really derives any authority for the insertion of educational clauses in his recent Bill for the North-West. It is a much more doubtful kind of authority he has had recourse to, namely, the unconstitutional legislation of the Manitoba Act of 1870, and the exceptional legislation required to ratify it in the Imperial Act of 1871. These are the precedents and authorities for which Sir Wilfrid has abandoned alike the Quebec Resolutions and the Act of the Union. The legislation for dependent Territories in 1875, has of course nothing to do with the question of initiatory Federal legislation *for a Province*. I shall consider it later on.

#### THE MANITOBA ACT.

The Act establishing the Provinces of Manitoba in 1870, was passed by a Government of which Sir John Macdonald was the head but in which Sir George Cartier was, as he well merited to be, also a controlling power. The personal alliance between these two men represented a very fair balance of racial interests, and partly perhaps for that reason they dealt more freely with the compact embodied in the Act of Union than it would be safe or just for an all-powerful Premier from either race to do. The situation in Manitoba was a difficult and dangerous one. The French half-breeds who then formed a majority of the population were uneasy as to the conditions under which they were to be incorporated into the Dominion; they were uneasy about their rights to the land, and the French-Canadian clergy who had great influence with them were uneasy regarding their privileges and the grants they had obtained from the Hudson Bay Company for religious and educational purposes. And in addition there were a number of American annexationists in the territory who meant to give the Canadian Govern-

ment trouble. The first expeditionary force was then being organized and a few months before, on January 28, 1870, Sir John Macdonald had written to a friend: "It is quite evident to me . . . from advices from Washington that the U. S. Government are resolved to do all they can, short of war, to get possession of the western territory." The Canadian Government, therefore, was obliged to give the most favourable terms to the new Province. It gave Manitoba a larger representation in Parliament than its population justified; it set aside, to the great detriment of immigration, 1,400,000 acres of the best lands in the heart of the province for the benefit of the children of the half-breeds, in addition to granting them titles to the lands they already occupied. It also retained, contrary to the Provisions of the Act of Union, control of the rest of the public lands, "as a means of constructing railways to Columbia," Sir George Cartier explained. (Debates, May 9). The Government also, to placate the clergy and the French Catholic half-breeds, inserted provisions for sectarian education into the Act, much the same as those contained in the Act of Confederation, but just sufficiently altered to be in some degree an infringement of the Act, in details, as the insertion of them at all was, in principle.

It defined sectarian rights as those existing "by law *and practice*," the two last words being an addition which was partly dictated by experience of the difficulties which had then arisen over the question of Separate Schools in New Brunswick. However much it may have been justified by the exceptional and dangerous conditions of the district, the legislation for Manitoba was in all these respects a clear violation of the Constitution made partly to satisfy the French-Canadian clergy and soothe the feelings of Quebec which were naturally strongly enlisted in favour of the half-breeds. To crown all, Section II of the Manitoba Act, contained a clause extending the Provisions of the Act of Confederation to the new Province, "*except so far as the same may be varied by this Act*," That clause puts the new Province outside of the protection of the Constitution, as far as the framing of its own constitution was concerned. But the fact is that everybody recognized on both sides of the House that the dangerous con-

ditions of the Red River Settlement required special legislation, and the great Act of Confederation with its careful Provisions for the balance of Federal and Provincial powers was practically dropped out of sight. Mr. Mackenzie, the Liberal leader, opposed the sectarian clauses. He said "education should be left to the people themselves "and that is was a mistake "to "initiate, permit or perpetuate "the Separate School System." (Debate, May 7). But he did so on open and general grounds, so far as I can learn from the newspaper reports of that time. And the Hon. Mr. Chauveau, who defended the sectarian clauses, did so, also, only on the general ground of expediency. He said, "it was desirable to protect the minority . . . There could (he said) be *no better model to follow than the Union Act* which gave full protection to minorities. It was impossible to say yet who would form a majority there, Protestant or Catholic." (The Globe, May 10, 1870). Sir George Cartier argued, "the *propriety* of continuing this custom or practice (of grants) which had hitherto operated more to the advantage of Protestants than Catholics." There is no pretence in these arguments on either side that the sectarian provisions of the Act of Confederation must be applied in the case of a new Province. Yet the speakers were all men who had helped to make confederation and knew what was meant by that compact. The *Montreal Witness*, a pillar of stalwart Protestantism in those days, declared in a sarcastically worded article (May 7), that the Bill was simply a gross case of Sir John's subserviency to Sir George. "This extraordinary measure," it said, "is carried through by Sir George Cartier with jubilant defiance . . . . He sits beside Sir John to see that he says what was agreed upon with Father Richot, and prompting him if he leaves out any part of the bond ; and poor Sir John goes through with it." During the succeeding stages of the debate Sir John took to bed—"biliary calculus."

No doubt Cartier's influence was perceptible in the Bill, but I think also Sir John kept a fairly firm hand on the things he valued, and I am not sure but in that historic alliance of Macdonald and Cartier there was a safer and healthier life for the original compact, for the Act of Union, than there ever has been since. One cannot but recognize that it has for some

time become a one-sided affair under Sir Wilfrid Laurier. Who could be blind to the meaning of his ebullition over the Alaskan affair, or to the regrettable want of magnanimity in his treatment of the Lord Dundonald incident? Who can be blind to the nature of the vengeance which keeps Manitoba a pigmy province in the midst of gigantic territories? What Premier of English race would have done that? The autocratic manner also in which Sir Wilfrid has dealt with this great constitutional question of North-West autonomy is really too evident. He has forgotten to consult his strongest colleagues amongst those who represent British and Protestant sentiment on this racial question; he has forgotten to consult Mr. Fielding and Mr. Sifton. One cannot but notice that they have become rather silent for some time back. A strange reticence has overtaken them under his rule. They must stay in the shade. Mr. Bourassa may speak freely, but not they. Everything, I am afraid, the hierarchy, the modern Rouges, (who have changed colour somewhat), the Irish agitator, has a better key to his heart than native British sentiment in Canada has. It is but natural, perhaps, but there is danger in it, though Sir Wilfrid is too wilful, Mr. Prefontaine too busy, and the gentlemen of La Ligue Nationaliste too young to see it. One of the great merits of the old English Liberal school was that its members had a just appreciation of the law of action and reaction which makes coercive legislation so dangerous where racial feelings are concerned. And Sir Wilfrid used to pride himself on belonging to that school!

#### THE ACT OF 1871.

But to return to our story. The Manitoba Act was a kind of constitutional muddle. Mr. George Brown attacked it in *The Globe* (March 29, 1871,) as being without the sanction of the Act of Confederation and liable to be overturned by any future Parliament. It was to cover this defect and partly also, to dispose of a doubt, suggested by Mr. Mills, as to whether the Canadian Parliament really had powers to create a new Province, that the Government appealed to the Imperial Parliament for a new Act confirming what had been done and extending the powers of the Canadian Parliament in dealing with new Provinces. Sir John described it in the House as "a con-

firmatory Bill to secure the constitutionality of past legislation." This was the Act of 1871. It is a brief document in six articles. Its 5th article declares that the Manitoba Act "shall be deemed valid." Its 2nd article gives the Canadian Parliament unqualified powers "to make provision for the constitution and administration" of a new Province and "for the passing of laws for the peace, order and good government of such Province at the time of its establishment ; and its 6th article makes such legislation unalterable, except in the case of boundaries. It makes no reference to the Act of Confederation and its 146th section. It cannot be said that Canadian legislation shows any unnecessary candour on this subject of sectarianism.

Here, then, we are left at last with a clear constitutional position as far as new provinces are concerned. The Act of 1871 gives the Canadian Parliament power to deal with them as it pleases, in spite of anything in the Act of Confederation.

Sir Wilfrid, therefore, has now an excellent opportunity to establish that ideal of Provincial autonomy which he described so eloquently to the House during the debates on the Remedial Bill in 1896. "Coercive methods," he said, "never yet led any people to good or wise government." He praised the freedom of American legislatures and questioned the wisdom of the Constitution which gave the Dominion Parliament the power of interfering with Provincial legislation. He asked what was the cause of these frequent recurrences of agitations, and he answered that "on every occasion there was only one cause, always the same, and that was the feature of our constitution, which abridges the independence, the sovereignty of the provincial legislatures." He pointed out that it was hardly the condition of free government where a provincial minority can appeal to the Parliament and "thus force the issue which was confined to their own province into the Federal arena." (Debates, March 3rd, 1896.) That was his view then on the Manitoba school question. Yet now he comes forward with a proposal to abridge the liberties, the "independence, the sovereignty" of the new provinces as the liberties of no other provinces in the Dominion, hardly even the provinces of Quebec and Ontario, bound of old by mutual specific contract before Confederation, are abridged. For, after all, in an old

province, where the character of the population has fixed itself and a large homogeneous citizenship exists, the separate school system of a small minority cannot seriously affect the development of a good national or common system. But it may seriously weaken and hamper the educational system of a new province.

Is there anything, then, in the constitutional history of Canada which prevents Sir Wilfrid from carrying out, as regards sectarian issues at least, the ideal which he professed in 1896, anything which obliges him to deal in this despotic manner with free Canadian Provinces? Is he "the tool and victim of the Constitution," as he taunted Sir Charles Tupper with being, in 1896. I cannot see it. Every document in the constitutional history of the Dominion that could reasonably be taken as a guide is a precedent or a protest against initiatory coercive legislation on the part of the Federal Government in educational matters. Even the unconstitutional Act of Manitoba is no precedent in favour of it, for the Separate School provisions in it were inserted in accordance with the wishes of the majority, and, as was generally understood, at the request of Father Richot and their representatives. Even the Act of 1871, an Act framed to meet the exceptional and dangerous conditions which then existed in the West, an act which Sir Wilfrid is evidently ashamed to refer to, does not make such legislation necessary; it only *permits* it, as it would permit the new provinces being made tributary fiefs of the Dominion. But there is one thing which will not permit it, and that is the sense which a free people have of their rights.

#### THE LEGISLATION OF 1875.

There is of course the legislation of 1875 for the North-West Territories on which and on the language Mr. Blake and others used in supporting it, Sir Wilfrid seems to rely a good deal as a precedent for his present course or as in some way a justification of it. But he is careful to avoid any close or direct treatment of the constitutional question here. He does not state precisely whether he refers to that legislation as a precedent for the Federal Parliament's imposing unalterable educational legislation *on a Province*, or whether he considers it merely as creating those sectarian rights which the Federal

Parliament has a right to protect by remedial legislation if it is appealed to so to do. He judiciously allows the two things to get mixed up and cleverly quotes some sentences of Sir Alexander Campbell's in which they are mixed up. Then he proceeds to quote George Brown's opinion, used, probably, partly *in terrorem*, that if Separate Schools were introduced into that Bill of 1875, then "they were there for all time." But he does not state his own opinion on the subject. I wonder Dr. Sproule did not ask him for that. In any case in considering some of the opinions expressed at that time, one must keep in mind that the common school system of that day was not so fully and delicately organized in its relation to higher educational institutions and to the national life as it now is. They did not understand all its import, as we do now. I am no enemy of the Catholic Church. I think with tenderness, not only of her historic past (which in a sense of course is also ours), but of much that is peculiarly her own. But I do not think her educational system and its traditions are such as we should forcibly impose on the new peoples of the West. I should be against burdening them for all time with the duty of maintaining religious communities which even the Catholic countries of the Old World have fought so desperately to expel. Really, when one considers it, what worse treatment did ever England, in the dark old days, give to Ireland than to impose an unpopular and non-national Establishment on the people and to take from them the control of their lands. Talk of the "old Colonial policy"; here it is in its worst form.

The legislation of 1875 affords of course no precedent for the manner of dealing with the constitution of a Province. It was provisional legislation, as Mr. MacKenzie, who introduced it, stated, and might be altered as the circumstances required. There was never anything in the Constitution to prevent the Dominion Parliament dealing with dependent territories as it pleased. It is a very different question how far such legislation, or any legislation which is controlled by Federal authority, can create sectarian rights under the Act of Confederation. Under that Act the one function of the Federal Parliament is to protect such rights on appeal, not to create them. Mr. Blake who moved the insertion of the educational clauses into the Bill did

not commit himself to any view on this constitutional aspect of the case. On general grounds he thought it was advisable to introduce some such Separate School System as they possessed in Ontario into the new territories. Very possibly also Mr. Blake thought such a system, if introduced then, might become a fixture ; it is a fair inference from his language. But to quote his authority for enforcing it, for fixing it in an unalterable form on an independent province which almost unanimously rejects it, is a very different matter. It is quite clear that the Act of 1871 at least relieves the Government from any obligation to do so. Or if the Government prefers to regard the Act of Confederation with its guarantee of sectarian rights as the proper authority for the case, then the way is equally plain, the Federal Government must wait till its right of remedial legislation is lawfully invoked. It has nothing to do with educational legislation at this stage. There is no moral or legal force in the clause guarding existing sectarian rights, if its accompanying limitations are treated as annulled. But the plain fact is that Sir Wilfrid in this North-West Bill is legislating for the new Provinces just as if they had no protection at all under the Act of Confederation. He uses that Act, he approbates and reprobates it, just as he pleases.

#### THE MORAL AUTHORITY OF THE RACIAL COMPACT.

This brings us to the last aspect of the question, an aspect which is not so much concerned with the letter of the Constitution as with the moral authority of the compact (so all the fathers of Confederation used to call it at the time) which the English and French races understood they were entering into, when they agreed to Confederation. In its original form of the Quebec Resolutions, the only form ever properly put before the people of Canada, there is not even a question of extending the principle of sectarian education by Federal authority beyond the limits of Quebec and Ontario. But let us waive that and come to its authoritative form in the Act of Confederation, which, after all, was a more deliberate and carefully considered form of the original compact, not to be departed from in its essential spirit except by common consent of the different provinces and races incorporated in the Dominion. And com-



mon consent here does not mean the consent of a mechanical vote from a Parliamentary majority dominated by ministerial influence. Sir Wilfrid once recognized that. How vigorously did he denounce Sir Charles Tupper in those days of 1896 for "forcing the project (of Confederation) down the throats of the people of Nova Scotia by the brute force of a mechanical majority."

What, then, was the essential substance of the compact by which these different races and provinces agreed to settle their religious differences in the matter of education? That was a vital question for them because it was the only great question on which their racial interests were felt to be absolutely exclusive of each other. The first point regarding it is this, that the Provincial autonomy was to be the dominant principle in educational legislation. And this was a point on which the French-Canadian people and their representatives had particularly insisted, as both Sir John Macdonald and Sir George Cartier reminded them at the time of the New Brunswick embroglio, as it used to be called. The second point is that they recognized the sectarian rights of minorities, outside of Ontario and Quebec, *not as general or uniform*, but as limited, casual and variable, according to the usages or even the will of these other provinces,\* and they put these and these alone under the protection and within the scope of Federal legislation. The third point is that having thus had to introduce another and secondary source of legislation, they secured Provincial autonomy, the dominant principle, by giving the Province in every case the first right of making its laws respecting education and by stringently restricting the Federal Parliament to remedial legislation on appeal.

Such was the essential unalterable substance of the compact. If Sir Wilfrid then pretends to found his Bill for the North-West on the authority of the Act of Confederation, either in its letter or in that larger construction of it as a racial compact which still survives even when the letter of it has been broken, then there is but one way for him to proceed. He must leave legislation respecting education to the Provinces in the

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\*For example, it remained open to British Columbia to define its educational usage before entering the Confederation. And so it did, against the Separate School system.

first instance and content himself with declaring that they shall be subject to the Provisions of the Act of 1867 in this respect. That is in itself a great enough concession for a young nation on this western continent to make to the principle of clerically controlled education. The Provinces themselves have the first right to judge how far they are bound by law or by justice to recognize existing sectarian rights as of their own making, or how much farther they are willing to recognize them. The one safe and clear course for the West is to insist on that. The initiatory right of legislation is not a mere formality. Even if the Provinces granted precisely the same rights as Sir Wilfrid's Bill demands, their legislation might, if serious evils were developing under it, be modified without much difficulty. It sometimes makes a great difference in legal questions where the original right of legislation lies. Federal legislation in this case particularly would be apt to have a petrifying effect (Premier Haultain certainly found the right word) on the educational system of the Provinces.

JAMES CAPPON.

Kingston, March 22, 1905.

ORIGINAL CLAUSES OF THE BILL FOR THE NORTH-WEST PROVINCES.

"The provisions of section 98 of the British North America Act shall apply to the said provinces as if the date upon which this act comes into force the territory comprised therein were already a province, the expression, 'the union' in the said section being taken to mean the said date. Subject to the provisions of the said section 98, and in continuance of the principle heretofore sanctioned under the North-West Territories Act, it is enacted that the Legislature of the said province shall pass all necessary laws in respect of education and that it shall therein always be provided :

"(a) That a majority of the rate-payers of any district or portion of said province or of any less portion or sub-division thereof by which name the same is known may establish such schools therein as they think fit and make the necessary collections of rates therefore : and

(b) That the minority of the ratepayers therein, whether Protestant or Roman Catholic may establish separate schools therein, and make the necessary amendments and collection of rates therefore : and

(c) That in such case the ratepayers establishing such Protestant or Roman Catholic schools shall be liable only to assessment of such rates as they impose upon themselves in respect thereof.

(2) In the appropriation of public monies by the Legislature in aid of education and in the distribution of any monies paid to the Government of a province arising from the school fund established by a Dominion Lands' Act, there shall be no discrimination between the public schools, and such monies shall be applied to the support of public and separate schools in equable shares or proportion.





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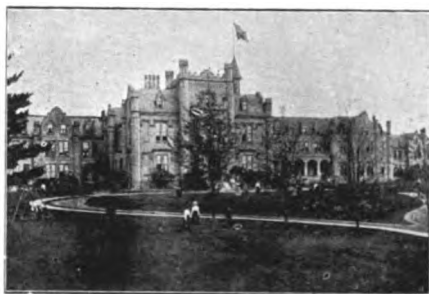
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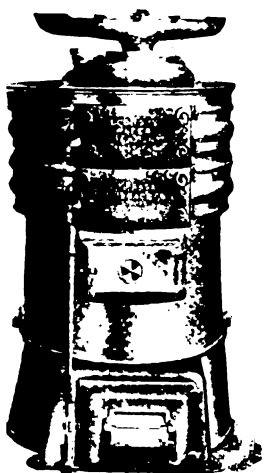
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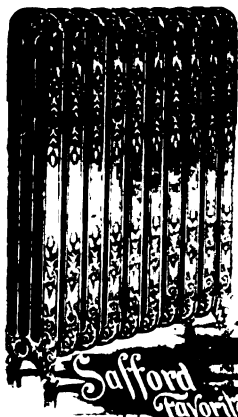
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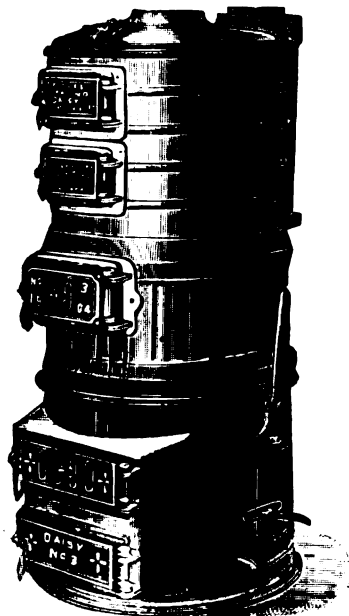
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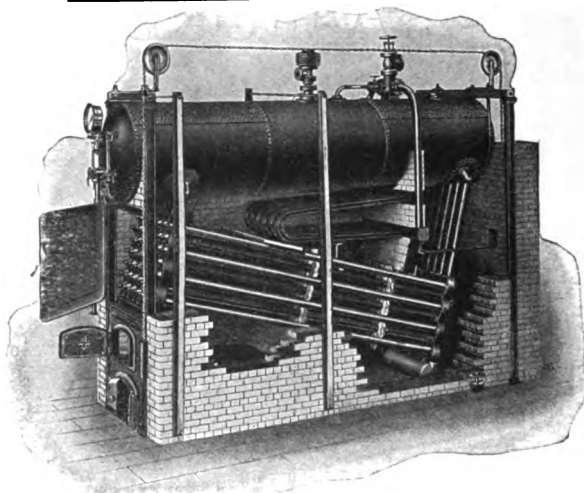
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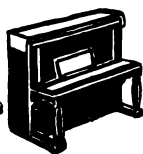
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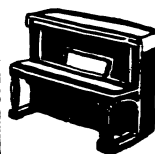
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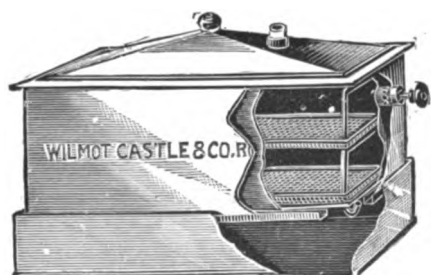
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## EDUCATION DEPARTMENT CALENDAR, 1905.

### April :

(IN PART)

1. Returns by Clerks of counties, cities, etc., of population to Department, due.
14. Examinations in School of Practical Science begin.
15. Reports on Night Schools due, (session 1904, 1905.)
20. High Schools, second term, and Public and Separate Schools close.
21. GOOD FRIDAY. Annual examination in Applied Science begins.
24. EASTER MONDAY.
25. Annual Meeting of the Ontario Educational Association at Toronto.
30. Notice by candidates for the High School Entrance Examination, to Inspectors, due.

### May :

1. High Schools, third term, and Public and Separate Schools open after Easter Holidays. [H. S. Act, Sec. 45; P. S. Act, sec. 96; S. S. Act, sec. 81.]
1. Toronto University Examinations in Arts, Law, Medicine and Agriculture begin.
5. ARBOR DAY.
23. Empire Day (first school day before 21st May.)
- Notice by candidates for the District Certificate, Junior and Senior Teachers' Examinations, University Matriculation and Commercial Specialist Examinations to Inspectors, due.
24. VICTORIA DAY.
26. Inspectors to report number of candidates for District Certificate, Junior and Senior Teachers' University Matriculation and Commercial Specialist Examinations.
31. Close of Session of Ontario Normal College. Reg. 74.
- Assessors to settle basis of taxation in Union School Sections. [P. S. Act, sec. 51 (1).]

### June :

1. Public and Separate School Boards to appoint representatives on the High School Entrance Boards of Examiners. [H. S. Act, sec. 41 (2).]
- By-law to alter School boundaries—last day of passing. [P. S. Act, sec. 41 (3).]
9. University commencement.
13. Senior Matriculation Examination in Arts, Toronto University, begins.
16. Provincial Normal Schools close (Second Term.)
23. High School Entrance Examination begins.
30. High, Public and Separate Schools, close. [H. S. Act, sec. 45; P. S. Act, sec. 96; S. S. Act, sec. 81.]
- District Certificate, Junior and Senior Teachers' and University Matriculation Examinations, and Commercial Specialist Examination, begin.
- Protestant Separate School Trustees to transmit to County Inspectors names and attendance during the last preceding six months. [S. S. Act, sec. 12.]
- Trustees' Reports to Truant Officers due. [Truancy Act, sec. 12.]

*Examination Papers of the Education Department of Ontario can be ordered from The Carswell Company, 30 Adelaide St. East, Toronto.*

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